CW
MI 48106UIVYMUIVYM FCNB
UNIVERSITY MICROFILMS
SERIAL PUBLICATIONS
300 N ZEEB RD
ANN ARBOR MI 48106

COMPUTERWORLD Communications

THE COMPLETE NETWORKING COMPANY.

1 800-821 7700 EXT 574

Mom files best.

Introducing PC/COM.™ Truly, the fastest, easiest way to manage information today.

When MOM™ says she has a software system that can manage information faster than anything else on the market, believe it.

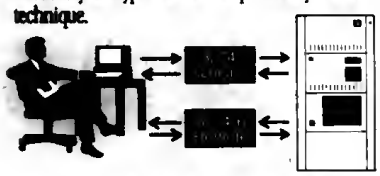
It's called PC/COM. A revolutionary automatic file transfer and management system that opens up a whole new realm of opportunities to PCs and PC-users.

Your mainframe works faster with PC/COM. Your PC gets more file management features.

If you are a mainframe user of TSO, CMS, or CICS, PC/COM will prove invaluable.

MOM says any job worth doing is worth doing fast.

MOM's PC/COM manages information at an incredible speed. And PC/COM will handle just about any file type with its unique binary transfer technique.



You can even back-up your hard disk on the mainframe. Leave it parked there until you need it. All it takes is the press of a key to get it moving again.

PC/COM is bi-directional, to save time getting information out of the mainframe onto your desk. And vice versa.

Security conscious, private and flexible — that's MOM.

The PC/COM has file access control and security built right in. So only those parts of the mainframe that should be accessed, are.

PC/COM is user-friendly and menu-driven so it's easy to understand. And simple to operate. All the features (and believe you, MOM, there are plenty) are initiated by a single function key.

Call MOM. 1-800-241-1170.

Talk to MOM. Tell her what you have and what you need. Ask her any questions about PC/COM and get good, clear answers.

MOM wants you to understand what you're getting into with PC/COM — and how much you can get out of owning the best, and fastest, file transfer and management system on the market.

The revolutionary PC/COM. Of course, from MOM. Phone 1-800-241-1170 or 404-351-2902.

MOM™

Specialists in Marketing of Micros to Mainframes.
Two Northside 75, Atlanta, Georgia 30318
A division of NPM, Inc.

MOM and PC/COM are trademarks of National Product Marketing, Inc. ©1983, The MOM Corporation

The Great American Telecommunications Puzzle...

Today, there's a telecommunications puzzle facing datacomm users: how to obtain end-to-end network integrity from one source. Divestiture has eliminated AT&T as a single source, but GDC now solves this puzzle with a full range of datacomm products and NETCON-6 network management systems to tie your network together.

GDC has the products to derive the network with a full range of multiplexers and concentrators — FDM, TDM, SDM; to access the network with data sets — analog, digital and local area; and to manage the total network with NETCON-6.

Total system capability — that's what GDC gives you — from network planning, consulting, system engineering and installation to coast-to-coast service.

GDC takes the work out of networking.

General DataComm Can Tie All the Pieces Back Together For You

MEGAMUX
Super powerful data/voice multiplexer transmits voice and data to 2 Megabits with non-interfering automatic system reconfiguration

NETCON 6 NMS
The most sophisticated, automated network management system available. NETCON-6 adapts to all networks, analog, digital and local area. It wraps around any datacomm hardware, offering centralized supervision, diagnostics, control, restoral and reporting — insuring true network integrity.

MULTIPLEXERS
Widest range of Frequency Division, Time Divison, Statistical and Polling Multiplexers for the simplest to most complex networks.

DATACOMM MODEMS
For analog, digital, local area networks all in common shelf enclosures—DataCommonality.

GEN•NET™
Statistical Network Concentrator, expandable, up to 96 channels, 4 composites to 168 Kbps.

GDC, The Networking Company

General DataComm

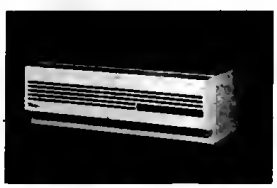
General DataComm Industries, Inc., One Kennedy Avenue, Danbury, CT 06810 (203)797-0711
General DataComm Industries Ltd., Suite 410 West, 2255 Sheppard Avenue East, Willowdale, Ontario M2J4Y3 (416)498-5100
General DataComm (UK) Ltd., Toutley Road, Wokingham, Berkshire, RG11 5QN, England (0734)791 444

U.S. Sales Offices: Atlanta, GA (404)955-0682; Boston, MA (617)229-2740; Chicago, IL (312)298-4181; Dallas, TX (214)980-0803; Detroit, MI (313)540-4110; New York, NY (212)423-5080; San Francisco, CA (415)569-3115; Santa Ana, CA (714)957-0244; Washington, D.C. (301)596-0888
U.S. Telecomm Sales: Atlanta, GA (404)993-2596; Chicago, IL (312)653-9262; Santa Ana, CA (714)957-0244; St. Louis, MO (314)441-9055; Mt. Laurel NJ (609)235-5367; New York, NY (914)969-5162; Middletown, NY (914)343-2882; Washington, D.C. (301)428-3311; Dallas, TX (214)241-5383; Seattle, WA (206)355-4800; Puerto Rico (809)792-6855

What's a 7-letter word for a data switching system that lets you expand your network as far and as fast as you like?

Xplexer. It's Tellabs' modular, expandable, high-performance data switch that's versatile enough to answer your present network needs and flexible enough to face a future filled with change. You can add terminals at any time because the Xplexer's terminal interface capacity is virtually unlimited. Should the need to interface only a few remote terminals arise, the Xplexer's integral line-driver option is your answer. Or, for very affordable communication with larger groups of remote terminals over a single link, pair up your Xplexer with Tellabs Dataplexers, our high-speed statistical multiplexers. If you decide to interconnect several local networks, the Xplexer can handle that, too. It can join as many as 256 switching nodes. And it supports multiple composite links at speeds up to 76,800bps.

Menu-driven configuration and statistics control, switched or permanent virtual circuits, channel-speed conversion, alternate routing, nonvolatile memory: the Xplexer



has all the answers. It's the perfect solution to your port selection, extended network, and distributed network puzzles

tellabs

4951 Indiana Ave., Lisle, IL 60532 (312) 969-8800

CW COMMUNICATIONS/INC.
Box 880, 375 Cochituate Road
Framingham, Mass. 01701

Board Chairman/
Publisher — Patrick J. McGovern
President — W. Walter Boyd
Senior Vice-President — Lee Vidmer
Group VP Communications
Services — Jack Edmonston
Group VP Circulation — Margaret Phelan
VP Sales — Donald E. Fagan
VP Finance — William P. Murphy
VP Editorial — John Whitmarsh

General Manager — Kevin McPherson
Editor — Marcia Blumenthal
Production Editor — Rick LePage
Copy Editor — Kimberly Valloch
Art Director — Tom Monahan
Designer — Kristie VanValkinburgh
Production Director — Peter Holm
Production Manager — Marlene Stibal
Typesetting Manager — Carol Polack
Paste-Up Manager — Patricia Gandette
Print Buyer — Jude Goldman
Display Advertising
Supervisor — Anne Hadley
System Manager — Tom Pfau
System Applications — Katrina Lee

INTERNATIONAL DATA CORPORATION
5 Speen Street
Framingham, Mass. 01701

Vice-President/Database — Jerry Todd
Director of MIS — Walter Pitts
Product Manager — Mike Hovagimian
Product Support Reps — John DeSouza
Ann Bevilacqua
Russell T. Onofrio
Telephone Staff Manager — Dot Lanciloti
Programmers — Daniel Funosi
Bob Chiler

Second-class postage paid at Framingham, Mass., and additional mailing offices. *Computerworld* (ISSN-0010-4841) is published weekly, except January (6 issues), February (6 issues), March (5 issues), April (7 issues), May (5 issues), June (6 issues), July (6 issues), August (5 issues), September (6 issues), October (6 issues), November (6 issues), and a single combined issue for the last week in December and the first week in January by CW Communications/Inc., Box 880, 375 Cochituate Road, Framingham, Mass. 01701.

Copyright 1984 by CW Communications/Inc. All rights reserved. Reproduction of material appearing in *Computerworld Buyer's Guide* is forbidden without written permission. Send all requests to Nancy Shannon.

Computerworld subscription prices: $2.00 a copy; U.S. — $44 a year; Canada, Central & So. America — $110 a year; Europe — $165 a year; all other countries — $245 a year (air mail service). Four weeks notice is required for change of address. Please allow six weeks for new subscription service to begin.

Computerworld can be purchased on 35mm microfilm through University Microfilm Inc., Periodical Entry Dept., 300 Zeeb Rd., Ann Arbor, Mich. 48106. Phone (313) 761-4700. *Computerworld* is indexed; write to Circulation Dept. for subscription information.

PHOTOCOPY RIGHTS: permission to photocopy for internal or personal use or the internal or personal use of specific clients is granted by CW Communications for libraries and other users registered with the Copyright Clearance Center (CCC), provided that the base fee of $3.00 per copy of the article, plus $.50 per page is paid directly to Copyright Clearance Center, 21 Congress Street, Salem, MA 01970.

Permission to photocopy does not extend to contributed articles followed by this symbol. ‡

ABP

POSTMASTER: Send Form 3579 (Change of Address) to Computerworld Circulation Dept., Box 880, 375 Cochituate Road, Framingham, MA 01701.

COMPUTERWORLD BUYER'S GUIDE Communications

CONTENTS

About the Guide 4
Editor's Note 6
Magazine 7
Vendor Profiles V-1

LISTINGS

Modems A-1
Multiplexers A-62

Converters/Emulators B-1
Communications Processors B-22
Switching Equipment B-42

Local-Area Networks C-1
Software C-14
Facsimile Devices C-44
Transmission Services Vendors C-49
Advertiser's Index C-56

DISCLAIMER — *CW Communication/Inc. publishes listings and advertising in this* Buyer's Guide *on the condition that its liability shall be limited as follows. In the event of errors or omissions in any listing herein, including without limitation the inclusion of outdated information with respect to an advertiser, the liability of CW Communications/Inc. shall be limited to the cost to the advertiser of the listing in which such error or omission occurs. In no event shall CW Communications/Inc. be liable for any loss of an advertiser's business, revenues or profits, or special or consequential damages of any kind. The foregoing provisions shall apply to the full extent permitted by law and regardless of whether the advertiser's claim is based on contract, tort, strict liability or otherwise, and shall constitute the advertiser's sole remedy against CW Communications/Inc. in the event of an error or omission.*

Computerworld Buyer's Guide is a member of the CW Communications/Inc. group, the world's largest publisher of computer-related information. The group publishes 44 computer publications in 18 major countries. Nine million people read one or more of the group's publications each month. Members of the group include: Argentina's *Computerworld/Argentina*, Australia's *Australasian Computerworld* and *Micro Computer Magazine*; Brazil's *DataNews* and *MicroMundo*; China's *China Computerworld*; Denmark's *Computerworld/Danmark* and *MikroData*; France's *Le Monde Informatique*; Germany's *Computerwoche*, *Microcomputerwelt* and *PC Welt*; Italy's *Computerworld Italia*; Japan's *Computerworld Japan* and *PC Japan*; Mexico's *Computerworld/Mexico*; Norway's *Computerworld Norge* and *MikroData*; Saudi Arabia's *Saudi Computerworld*; Spain's *Computerworld/Espana* and *MicroSistemas*; Sweden's *ComputerSweden*, *MikroDatorn* and *Hits Hemdator*; the UK's *Computer Management* and *Computer Business Europe*; the U.S.' *Computerworld*, *Desktop Computing*, *Hot CoCo*, *InCider*, *InfoWorld*, *Micro Marketworld*, *Microcomputing*, *PC World Ban* and *80-Micro*.

About the Guide

The *Computerworld Buyer's Guide to Communications* is a reference manual containing concise descriptions of communications hardware, software and transmission services and short profiles of the vendors offering those products.

The guide contains three major product sections, each preceded by a fold-out tab divider identifying the products listed within that section. The three tab dividers are Modems and Multiplexers (Section A); Converters/Emulators, Communications Processors and Switching Equipment (Section B); and Local Area Networks, Communications Software, Facsimile Devices and Transmission Services Vendors (Section C).

In cases where several different types of products are contained within one tab section, a gray-colored page with a product classification identifier is inserted in front of the listings for that particular product grouping.

Preceding the product listings is a vendor profile unit (Section V).

The front of the guide features a special magazine containing articles concerning the state of the industry, technology overviews of specific products and issues pertaining to communications.

Also featured in the guide are separate indices which provide a method for quickly locating the diverse products listed in the guide.

PRODUCT LISTINGS

The product listings contain pertinent technical specifications for the products listed in the guide. Technical data includes information on transmission characteristics, interfaces, protocols and compatability with other vendor's products, among others.

In general the listings are arranged in alphabetical order by vendor, with product descriptions following in alphabetical order by device name and/or model number. In some cases, all listings for one type of product — such as short-haul modems — are listed under the entry for a particular vendor, followed by listings for other classifications — long-haul modems — offered by the same vendor within the same general product classification .

All product listings include information on purchase terms, pricing, installation statistics and monthly maintenance fees when vendors supplied such data.

An example of a typical product listing is shown at right.

Note: Due to problems related to divestiture, AT&T Information Systems, Inc. was unable to provide us with information regarding their modem and multiplexer products. However, they are listed in the vendor section of the guide.

CONCORD DATA SYSTEMS, INC.
CDS 212
Modem Class: Long-Haul
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous/Synchronous - 1,200 bps
Interface: RS-232C
Bell-Compatible: 212
Transmission Medium: Voice-Grade Lines
Diagnostics: No
Features: Autoequalizer, Autoanswer, Diagnostics, Fallback, Switchable Data Rates
Distribution Method: End user, OEM, Third-party
Price: $700
Number Installed to Date: Under 100
Date First Installed: November 1981
(See Vendor Profile Page V-7)

About the Guide

COMPANY PROFILES The company profile section of the *Computerworld Buyer's Guide to Communications* contains each vendor's address and telephone number as well as a listing of key management, marketing and technical personnel within the firm. In addition, the profile includes the company's target markets and revenues, among other details.

An example of a typical entry is shown at right.

NOAKES DATA COMMUNICATIONS, INC.
3330 Stovall
Irving, TX 75061
(214) 986-1151
Major Market: Component, Computer and Communications Equipment Manufacturing, Dealer/Distributor
Target Applications: Data Communications; Network Control; Data Collection
Net Sales: $1 Million - $5 Million (1981)
Contacts:
Head of Marketing: Kenneth Brown
Geographic Coverage: National
Year Established: 1968
Number of Employees: 30

INDEXING SYSTEM Each product category (except transmission services) contains an index, which is located prior to the complete product listings for a particular product type. The introduction to each index provides a definition of the product category. It also explains the method used to sort the products for indexing as well as a description (when necessary) of the order the listings appear in the section.

The indices are designed to provide an overview of the products contained in that section and to make it easier to locate a specific product.

An example of an index is shown below.

Fiber-Optic Multiplexers

VENDOR	MODEL	PRICE	PAGE
Belden Corp.	BIT-DRIVER 222-006	*$1,950*	*A-69*
Canoga Data Systems	CMX-320	*$2,500*	*A-70*
	CMX-808	*$1,200*	*A-70*
	CMX-815	*$2,750*	*A-70*

THE ENTERPRISE FILE The Enterprise File is a data base containing information on thousands of companies that produce or provide computer-related products and services. It is the source of listing information in the *Computerworld Buyer's Guide to Communications.*

The project was started in April, 1982 and is a complement to the International Data Corp. (IDC) Data File, a well-known data base of end-user facilities.

Information is gathered and regularly updated by IDC through printed questionnaires and telephone surveys. To date the Enterprise File has records on more than 12,000 companies and 30,000 products.

Note: Vendors were offered the option of placing their company name in a larger typeface than the standard listing size. Vendors were also offered the option of adding a boxed insert at the end of their listing. These options were paid for by the vendor and should in no way be construed as an endorsement of these companies and products by the publisher of the *Computerworld Buyer's Guide to Communications.*

Editor's Note

If you find uncertainty exciting then you'll love today's communications environment.

By now, most information processing managers have experienced the joys of mainframe mips watching, debated distributed processing ad nauseam and defended themselves against the encroachment of micros and their accompanying handmaiden — office automation.

And just when they thought it was safe to come out of the computer room, the communications dilemma lumbered onto the scene. And unfortunately, the dilemma is here to stay for the foreseeable future.

In some ways, the communications environment can be compared to the office automation scene at the time when information processing managers were confronted by administrative managers who wanted a say in automating the office. Generally, the person who was in charge of buying the new electric typewriter — and later the stand-alone word processor — wanted a hand in orchestrating the proliferation of personal computers for professionals. By then, the information processing manager began realizing the personal computer was in fact end-user computing, a much-talked about but rarely implemented concept. But as data and the access to data, rather than clerical work, became issues, the information processing manager became more highly visible in the direction of the personal computer in the organization.

Likewise, the communications function was often left in the hands of the telecommunications manager, a person largely responsible for operating and purchasing the equipment for the voice communications side of the house. But when data transmission was at stake, the information processing manager had to take a more forceful role in determining what the burgeoning network would look like.

In these two instances, there have been organizational problems as information processing managers have had to assert themselves in the office automation and communications disciplines.

In addition to often becoming embroiled in organizational politics, information processing managers have had to begin selecting products for these disciplines, giving form to what once dwelled in the realm of nebulous concepts.

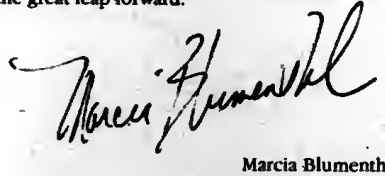
Making decisions on what the communications structure of the organization will look like is difficult because it requires tying together the myriad of automated equipment already in place. The investment is expensive — it is not just a matter of which personal computer to select. With technology changing like New England's weather and many products not yet on the market, the risk of making an inappropriate choice is high.

Moreover, standards — not highly relevant to other forms of information processing — are critical to the communications arena. Yet few standards have been promulgated. Also, there has been little product and market direction yet, as illustrated by the fact that the two industry leaders, AT&T and IBM, have barely dipped their toes in the communications ocean.

Despite this environment, information processing managers are being pressured to come up with a workable networking scheme. In selecting products and systems to create the networks, information processing managers are often approaching the task as they did when other products were in their early life cycle — paying a lot of attention to technology rather than applications.

On the conference circuit, participants eager to find out more about local-area networks are bombarded by information about topologies and access methods. These are certainly important considerations, but they are essentially technological issues and do not take the place of advice on how to proceed with such a network.

From reports circulating around the user community, it appears that some of those who are implementing advanced communications networks are taking what's available and piecing it together into a workable solution — perhaps not ideal, but workable. While this approach may not be ideal, it may be time for more managers to take the great leap forward.



Marcia Blumenthal

Magazine

FEBRUARY 1952

Magazine CONTENTS

12

The State Of the Net

By Nick Lombardo

The local-area network market is still in its early adolescence and the battle for technological supremacy rages on.

18

A LAN Grows in Manhattan

By Jim Bartimo

Chase Manhattan Bank is moving ahead with its local-area network. In selecting which net to install, Chase did not suffer from "analysis paralysis," opting to be a test site for Wang Laboratories, Inc.'s Wangnet.

23

Plan Your Network

By Sherry Geddes

Users are overly concerned about the technology of local-area networks. Concentrating on the applications the networks will serve is a better way of viewing the network dilemma.

28

On the Road With Bypass

By Walter Ulrich

Technologies that allow users alternatives to telephone line transmission are on the horizon. None are truly proven yet, but the future is rosy.

32

Interview With Leonard Kleinrock

By Marcia Blumenthal

The communications environment is a jungle, with a lot of new animals roaming around. Kleinrock, a leading communications expert, sheds some light upon what to expect for the next few years.

35

Encryption: Securing the Fortress

By Laura Brown Schlafly

Users resist data encryption because they often think these devices are too expensive or difficult to install. But is the loss of data an acceptable alternative?

40

Mixing It Up With Muxes

By James J. Michaels

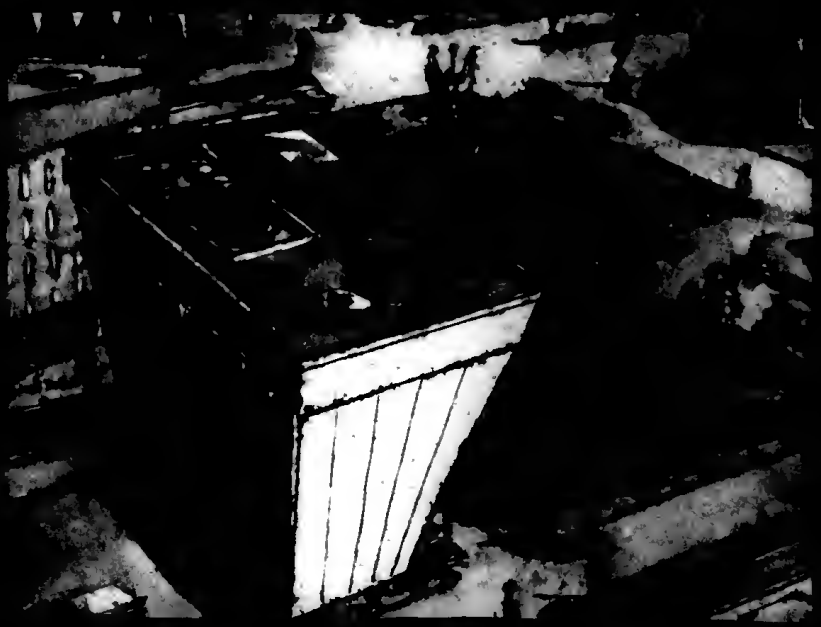
Multiplexers are quickly becoming a type of front-end processor. Specialized features such as multiple data links and switching are helping expand the range of these devices.

45

Controlling The Network

By Rudolf Strobl

Do you know the value of the network function in your hardware and software installation? In the not-too-distant future the network management component may approach 30% of the cost of your total system.



vices connected by a continuous medium.

- Limited in geographic scope (within a distance not greater than 50 miles), with devices physically separated but not mobile.
- Able, at least potentially, to establish communications among any and all attached devices.
- High-speed, with data rates ranging from 500K to 50M bit/sec.
- Commercially available.

Only the simplest local-area networks are true turnkey products. Most require a great deal of on-site engioeering to ensure the efficient locatioo of stations, ease of reconfiguration and expansion, accessibility for testing and repair and compliance with building and fire codes. Some vendors provide "soup-to-nuts" configuration and installation services, while others require that the user purchase and contract for the installation of all but the intelligent components of the network.

When choosing a local-area network, the potential user faces four basic tehnical issues — the network's physical medium and transmission technique; its topology; its access method; and any higher level services it offers. Today's market offers three basic media, three topologies and three access methods. The issue of higher level services is more complex, since a vendor can offer such services above any practical combination of the other three factors. Right now, the availability of high-level services depends heavily on specific applications.

The three transmission media currently practical for local-area networking are twisted copper wire (twisted-pair), coaxial cable and fiber optics. Twisted-pair is the least costly of the three and the easiest to install, but it places severe limitations on the maximum distance spanned by the network and on the maximum data rate the network can support. Coaxial cable is the most versatile medium; it comes in two types that support different transmission techniques.

Baseband coaxial cable supports single-channel digital transmission. Only one signal can travel over baseband cable at a time. Broadband coaxial cable supports multichannel, radio-frequency (RF), analog transmission. Up to 30 different signals, each at a different frequeocy, can travel over a broadband cable at the same time. Baseband cable is slightly more expensive than broadband cable, and baseband networks are limited in length to a few thousand feet while broadband networks can span a few tens of miles. However, baseband cable is easy to install and requires almost no maintenance, while a broadband oetwork requires physical design, and frequeot professional maintenance.

There has been much controversy over the choice between baseband and broadband transmission, but actually the two techniques serve quite different applications. Baseband cable is most useful in small- to medium-size automated offices and in existing buildings where full-scale rewiring would be a problem. Broadband cable is best for large installations, especially campuses and industrial plants, which generate heavy data traffic and require a high level of immunity from electrical noise. A broadband data network can share a single cable with a cable video network or even with another broadband data network.

Optical fiber is the newest and currently the most expensive medium for local-area networking, however, its cost is expected to drop dramatically. Its chief advantages are security from tapping and total immunity to electrical noise. The difficulty of tapping a fiber-optic cable creates a problem io a local-area network environment, because the user requires a medium that is relatively easy to tap into in order to add stations to the network.

A network's topology is the physical and logical arrangement of its stations in relation to one another. There are three topologies in current use for local-area networks: the bus, or tree, in which the stations are arranged in a straight and open-ended path along the main channel; the ring, in which the transmission path forms a closed circle through the stations with each station connecting directly to its two adjacent stations; and the star, in which each statioo connects directly to a central switching element over a point-to-point link.

Users who shop blindly will find local-area networking an inadequate, even restrictive, solution and will become tomorrow's dissatisfied customers.

The bus is the most popular topology in the United States. The most common bus architectures are the Ethernet, developed by Xerox Corp. and supported by a large number of vendors; the Arcnet, a tree network developed by Datapoint Corp., and used under license by a growing number of vendors; and the broadband tree, used in all broadband cable networks. Ring networks are popular in Europe, since much early ring development occurred at European universities. Star networks, currently out of fashion for high-speed local-area communications, are beginning to make a come back. The hierarchical star, with a number of star-shaped subnetworks connected in a larger star configuration to a central switch, is being discussed in a growing number of research reports, and might become the mainstay of the next generation of local-area networks.

A network's access method is the technique by which the network distributes the right to transmit among its participating stations. On most local-area networks, all signals are broadcast on the main channel; only one signal can occupy the channel at a time, and no two stations can transmit simultaneously. The access

Baseband Local-Area Networks

VENDOR AND MODEL	Datapoint Corp. ARC Local	Digital Equipment Corp. Decnet/Ethernet	Nestar Systems, Inc. Plan Systems
GENERAL CHARACTERISTICS			
Principal Applications supported	General DP; office automation	General DP; office automation	General DP; office automation; lab/classroom instruction
Voice and/or video applications supported	None	None	None
Specific end-user data processing equipment currently supported	Datapoint business computers	Any DEC Unibus, Q-bus or CNS-bus system	Apple II, III and IBM PC families; plug-compatibles
Topology	Bus/star	Tree	Unconstrained tree
Primary network medium	RG-62A/B4	Ethernet coax.	RG-62 coax.
Drop connection medium	RG-62A/B4	4-pair twisted wire	RG-62 coax.
NETWORK DIMENSIONS			
Max dist between farthest net. attach. units	4 miles	4.5 miles	4 miles
Max dist between adjacent net. attach. units	2000 ft.	4.5 miles	4 miles
Max no. of end-user devices addressable	255	1,024	255
TRANSMISSION SPECIFICATIONS			
Maximum throughput on main data channel	2.5M bps	10M bps	2.5M bps
Maximum end-user transmission rate	2.5M bps	10M bps	2.5M bps
Channel access method	Token passing	CSMA/CD	Token passing
HIGH-LEVEL SERVICES SUPPORTED			
Protocol conversion capabilities supported	None	Decnet/SNA; Decnet/X.25	Ascii/BSC; Ascii/SDLC
INSTALLATION/PRICING			
Number of network attach. currently installed	Over 51,000	N/A	Approx 6,000
Avg price per end-user device connected	$7,000	$3,900	$595

method is the network's way of controlling traffic.

In general, access control can be either central or distributed. Most bus, tree and ring local networks use distributed access methods in which each station participates in the control of the network. There are two classes of distributed access methods: random (or contention) and deterministic. In a random-access method, any station can transmit at any time. In a deterministic access method, each station must wait its turn to transmit. Random-access methods work best under sporadic, quick-burst traffic and in situations in which some stations transmit much more data than others. Deterministic access methods work best under a steady, heavy traffic load.

The most common random-access method is carrier-sense multiple access (CSMA), a technique in which each station can sense when the channel is busy, and can refrain from transmitting until the channel is clear. In "pure" CSMA, two stations can sense a clear channel simultaneously and transmit signals that will interfere with one another. This is called a "collision." In a refinement of CSMA, CSMA with collision detection (CSMA/CD), stations can detect such collisions and have a way to arbitrate the use of the channel after a collision has occurred.

The most common deterministic access method is token passing, a form of distributed polling in which the stations circulate a special bit pattern, the "token," which confers permission to transmit on the station that receives it. The stations are arranged in a logical order and each station polls the next station by passing the token to it. Collisions are impossible, but each station, once it has passed the token, must wait to transmit until the token has circulated among all other stations on the network. Token passing is used most frequently in ring topologies, but it also works well in some bus and tree configurations.

Most star networks use either a central polling technique or telephone-style circuit switching. Some of the experimental hierarchical stars use variations of CSMA and token passing, while others use new, traffic-sensitive, hybrid access methods.

Higher level services are only beginning to become available for local-area networks. The service offered most frequently is protocol conversion, especially from asynchronous devices into one of the IBM synchronous protocols, Binary Synchronous Control (BSC) or Synchronous Data Link Control (SDLC). Some networks offer data encryption and many offer network management features such as statistical traffic reporting and error logging. Local-area networks marketed especially for personal computers can often convert disk files among formats for the most popular machines.

Baseband Local-Area Networks

Network Systems Corp. Hyperchannel	Orchid Technology, Inc. PC Net	Ungermann-Bass, Inc. Net/One	Xerox Corp. Xerox 8000 Network
Computer-to-computer data channel extension	General-purpose	General-purpose	Office automation
None	None	None	None
Mainframes, minicomputers and peripheral devices from a number of vendors	IBM PC, XT; PC-compatible peripheral devices	Any RS-232C, IEEE 488, DEC DR11, or IBM PC-compatible devices; 8-, 16- or 32-bit parallel dev.	Xerox 8000-based office automation products
Bus 75 ohm coax. 15 ohm coax.	Linear bus RG-59B/U; RG-11/U; CATV RG-58/U or RG-11/U coax.	Linear bus Ethernet coax.; fiber-optic Transceiver cable	Bus Ethernet coax. 4-pair twisted wire
1.9 miles 1.9 miles Unlimited	1.3 miles 1.3 miles 65,536	1.5 miles 1.5 miles 24,567	1.5 miles 1.5 miles 1,024
50M bps 40M bps CSMA/CD	1M bps 1M bps CSMA/CD	10M bps 1.3M bps CSMA/CD	10M bps 10M bps CSMA/CD
None	None	None	Xerox/IBM 3270; Xerox/Ascii
Over 2,000 $500-$40,000	N/A $695	Over 2,900 $500	Approx 20,000 Subject to bid pricing/ quantity

Chart courtesy of Infotron Systems Corp.

The number of technologies available, and the number of practical combinations of those technologies create both opportunity and confusion. The opportunity comes to the sophisticated purchaser who can pick carefully from the range of options to create a specific network for specific needs, and to the high-tech entrepreneur who can design and market an unorthodox but demonstrably better way to solve the problems of networking. The confusion comes from the lack of compatibility among different commercial networks, both with one another and with the end-user equipment that must communicate over the network.

The local-area network industry has seen two major efforts to establish standards: one by industry organizations attempting to legislate standards, and one by vendors attempting to establish standards in the marketplace. Committee 802 of the Institute of Electrical and Electronics Engineers (IEEE) has led the legislative effort, while Xerox and the other Ethernet vendors have spearheaded the most successful market effort. Datapoint and its licensed chip manufacturer, Standard Microsystems, Inc., have also succeeded somewhat in establishing a de facto standard. Should IBM announce its much-rumored local-area network, it would likely become another market standard.

Although the IEEE 802 committee has not established a single standard, it has published draft specifications for at least two, a CSMA/CD architecture similar to Ethernet and a token-passing bus. The committee intends to issue at least one more draft standard, for a token-passing ring network, and a number of vendors are petitioning the committee to standardize their architectures for specific applications. Apparently local-area networking is a technology too young for standards.

Right now, the local-area network market contains three major segments: baseband networks, broadband networks and networks especially for personal computers. Among the baseband vendors, the Ethernet community — vendors such as Xerox, Digital Equipment Corp., Ungermann-Bass, Inc. and Interlan, Inc. — still leads the pack. However, Datapoint's installed base of Arcnet token-passing networks is still growing. Other non-Ethernet baseband architectures are beginning to disappear. Zilog, Inc., for example, has dropped its Z-Net II product in favor of Ethernet compatibility.

The broadband market remains a three-way race among Interactive Systems/3M, Sytek, Inc. and Ungermann-Bass, each of which have approximately the same market share. Wang Laboratories, Inc.'s Wangnet is beginning to compete with the market leaders, but potential customers still see it as a network only for Wang systems. Other notable broadband vendors are

Broadband Local-Area Networks

VENDOR AND MODEL	Interactive Systems/3M Videodata LAN/1	Bytek, Inc. LocalNet	Ungermann-Bass Net/One	Wang Laboratories Wangnet
GENERAL CHARACTERISTICS				
Principal applications supported	General DP; office automation	General-purpose	General-purpose	General DP; office automation
Voice and/or video applications supported	Analog voice; full-motion video	Voice; video	Can coexist	7 video channels
Specific end-user data processing equipment currently supported	Any async RS-232C device	Any RS-232C device	Any RS-232C, IEEE 488, DEC DR11, or IBM PC-compatible device; 8-, 16- and 32-bit parallel devices	All RS-232C and RS-449 devices; personal computers; mainframes minicomputers; peripherals
Topology	Tree-like bus	Tree	Rooted tree	Dual-cable tree
Primary network medium	CATV cable	CATV cable	CATV cable	Dual CATV cable
BROADBAND CHARACTERISTICS				
Cable configuration	Single or dual	Single	Single or dual	Dual
Number of channel pairs available	450	120	8	360
NETWORK DIMENSIONS				
Max dist between farthest net. attach. units	14 miles	50 miles	20 miles	8 miles
Max dist between adjacent net. attach. units	7 miles	150 ft.	20 miles	8 miles
Max no. of end-user devices addressable	11,000	24,000	7,200 per channel	Over 20,000
TRANSMISSION SPECIFICATIONS				
Maximum throughput on main data channel	2.5M bps/channel	128K bps or 2M bps	5M bps	10M bps
Maximum end-user transmission rate	100K bps	16.2K bps	1.3M bps	8.5M bps
Channel access method	Token passing; dedicated channel	CSMA/CD	CSMA	CSMA/CD; poll select; dedicated channel
HIGH-LEVEL SERVICES SUPPORTED				
Protocol conversion capabilities supported	None	Ascii/BSC; Ascii/HDLC	None	Ascii/BSC/SDLC/ Wascii
INSTALLATION/PRICING				
Number of networks currently installed	350 (3LAN/1 token systems)	350	Over 20	30
Avg. price per end-user device connected	$350 (with 8 port NIU)	$475-$575	$590	Varies

Chart Courtesy of Dataquest Research Corp.

Contel Information Systems, Inc. and Concord Data Systems, Inc.

The market for personal computer-based local-area networks is the fastest growing segment of the industry. Corvus Systems, Inc.'s Omninet and Nestar Systems, Inc.'s Plan networks lead the field now, although the potential market is so broad that any of a dozen competitors could catch up quickly. In the submarket that specializes in networking for the IBM Personal Computer, Orchid Technologies, Inc.'s PC-Net is an early leader.

With all the current activity in both the technology and the marketplace, some constants remain. The user must decide among a large and often confusing array of products both within the local-area network market and among alternative technologies. Users who examine the market with open eyes and detailed and careful assessments of their needs will acquire a powerful tool for the integration of a wide range of automated functions. Users who shop blindly will find local-area networking an inadequate, even restrictive solution and will become tomorrow's dissatisfied customers.

Alongside the many applications for which local-area networks can provide beneficial, cost-saving solutions are some applications for which local-area networks are either too costly or too unsophisticated technically. In other words, for some applications that might lend themselves to local-area networking, other technologies can do the job better.

For simple port selection or port contention among one or more computers and a network of terminals, a local-area network is simple overkill. Users in such situations usually wish only to gain access to host-resident applications: the host computers handle requests for storage and peripheral services. The terminals are usually unintelligent, asynchronous devices that cannot share software either with the host or with one another and that need to communicate with only one computer at a time.

For port selection among a small number of computers of sim-

No Other Publication Gives You SO MUCH Timely News, Money-Making Ideas & Management Information—

***PLUS** Specials! Bonus Issues!*
All Included In The Basic Low Subscription Price

COMPUTERWORLD

As a weekly newspaper, ***COMPUTERWORLD*** gives you thorough and timely coverage of news and ideas of interest to computer users in industry, business, government and education. Unlike monthlies, ***COMPUTERWORLD*** covers *hundreds* of relevant news items *each week*. *But beyond the "news" you get much more as a CW reader:*

- Weekly "In Depth" articles.
- Monthly "Special Reports" on selected subjects.
- ***COMPUTERWORLD BUYER'S GUIDE SERIES*** . . . a comprehensive series of product-specific lists and up-to-date information on each major product area.
- ***COMPUTERWORLD OA*** with incisive coverage of office automation.
- ***COMPUTERWORLD ON COMMUNICATIONS*** covers product and system developments in the rapidly changing communications field.
- **PLUS** Other Special Issues Throughout The Year!

SUBSCRIBE NOW

Complete Form On Reverse,
Then Return In Attached
Postage-Paid Envelope Or Use Your
Charge Card and Call
TOLL-FREE: 1-800-343-5730.

☐ **Please enter my subscription (details on back)**

☐ **I'm already a subscriber, but I'd like you to change my:**

☐ address ☐ title
☐ industry ☐ other

Put old label or label information here

My current mailing label is attached and I've filled in new information on the other side.

Please send me COMPUTERWORLD for one year. RATES: United States $44; Canada, Central & South America $110; Europe $165; All Other Countries $245 (Airmail Service)

☐ Check Enclosed
☐ Am Ex ☐ BA/Visa ☐ MC (MC Only List four digits above your name)

If charge we must have cardholder's signature _____ Expiration Date _____

First Initial		Middle Initial		Surname	
Your Title					
Company Name					
Address					
City			State	Zip Code	

Address shown is
☐ Business
☐ Home

☐ Check here if you do not wish to receive promotional mail from *Computerworld*

☐ Check here if you re interested in receiving information on *Computerworld*'s Index

COMPUTERWORLD
THE NEWSWEEKLY FOR THE COMPUTER COMMUNITY
CIRCULATION DEPT. 375 Cochituate Road, Rte. 30, Box 897, Framingham, MA 01701-9985

Detach here, insert in business reply envelope and seal securely before mailing.

1. BUSINESS/INDUSTRY (Circle One)
End Users
10 Manufacturer (other than computer)
20 Finance/Insurance/Real Estate
30 Medicine/Law/Education
40 Wholesale/Retail Trade
50 Business Service (except DP)
60 Government—State/Federal/Local
65 Public Utility/Communication Systems/Transportation
70 Mining/Construction/Petroleum/Refining
75 Other User _____
Vendors
80 Manufacturer of Computers, Computer-related Systems or Peripherals
85 Computer Service Bureau/Software/Planning/Consulting
90 Computer/Peripheral Dealer/Distributor/Retailer
95 Other Vendor _____

2. OCCUPATION/FUNCTION (Circle One)
11 President/Owner/Partner/General Manager
12 VP/Assistant VP
13 Treasurer/Controller/Financial Officer
21 Director/Manager/Supervisor DP/MIS Services
22 Director/Manager of Operations/Planning/Administrative Services
23 Systems Manager/Systems Analyst
31 Manager/Supervisor Programming
32 Programmer/Methods Analyst
35 OA/WP Director/Manager/Supervisor
36 Data Comm Network/Systems Mgmt
41 Engr/Scientific/R&D/Tech Mgmt
51 Mfg Sales Reps/Sales/Marketing Mgmt
60 Consulting Mgmt
70 Medical/Legal/Accounting Mgmt
80 Educator/Journalist/Librarian/Student
90 Other _____

3. COMPUTER INVOLVEMENT (Circle all that apply)
Types of equipment with which you are personally involved either as user, vendor or consultant
A. Mainframes/Supermins
B. Minicomputers/Small Business Computers
C. Microcomputers/Desktops
D. Communications Systems
E. Office Automation Systems

Detach here, moisten and seal envelope securely before mailing.

NO POSTAGE
NECESSARY
IF MAILED
IN THE
UNITED STATES

BUSINESS REPLY MAIL

FIRST CLASS PERMIT NO. 709 FRAMINGHAM, MA 01701

postage will be paid by

CIRCULATION DEPARTMENT

COMPUTERWORLD

375 Cochituate Road, Rte. 30
Box 897
Framingham, MA 01701-9985

ilar make and with similar operating systems, one or more shared front-end processors can do the job more efficiently than a local-area network. For port selection among mutually incompatible computers, a port selection switch (also called a data PBX) is the best choice. Both front-end processors and data switches have been on the scene for years; they offer all the benefits of proven technologies: stable interfaces, time-tested maintenance and control procedures and a history of satisfied customers. Users should not take risks with an infant technology for simple applications when a less risky alternative is available.

At the other end of the spectrum lies the large-scale, fully integrated voice and data network. The local-area network has not been built that can handle a full load of voice telephone traffic along with a full load of data. Local-area networks are a creation of the data processing industry, and their technology has bypassed, not solved, the problems of voice communications that the telephone industry has been handling for decades.

From the telephone industry comes the voice/data PBX, a circuit switch built on a digital matrix and designed to handle both voice and data traffic. For data handling, these switches represent an even younger technology than local-area networking, and their data transmission capabilities are currently quite narrow. They use twisted-pair wiring, usually the same wiring as the building's telephone system, and are limited to a 56K or 64K bit/sec data rate. They are useful only in large installations, with a minimum of a few hundred lines. Their switching algorithms are designed for voice traffic (for a large number of short calls), rather than for the long sessions common with data traffic.

Still, they offer a number of advantages for large offices in which management would like to place a terminal on every desk. Any large office must have a telephone network, and the cost savings from having data applications share the voice network rather than using a separate cable plant can more than make up for the high initial cost of a voice/data PBX. The big switches' present limitations for data handling are not a long-term issue; their makers will probably have ironed the bugs out of data switching long before current local-area network vendors have taught their products to switch voice calls.

Current leaders in the voice/data PBX market are Rolm Corp., now partly owned by IBM; Northern Telecom, Inc., long a supplier to the Canadian telephone system; AT&T Information Systems, Inc., the former American Bell, Inc.; InteCom, Inc., whose IBX systems include an Ethernet interface; and Nippon Electric Corp. New vendors expected to do well are Ztel and CXC, both of whose switches incorporate local-area network technology.o

---

Lombardo is an associate editor of Datapro Reports On Data Communications *at Datapro Research Corp. in Delran, New Jersey.*

llation of a broadband local-area network.

The network ties together four buildings in midtown New York and a fifth building approximately one mile away. Eventually, the local network will encompass one of the bank's Long Island offices some 15 miles away, probably through microwave transmission. The local-area network itself will connect 60 to 90 floors in nine buildings in the next few years.

With further expansion, the local network will tie into the bank's private packet-switched network for national and international access to the bank's 90-plus data centers. According to Harvey S. Hershkowitz, a vice-president in the operations department, who helped usher the network into existence, "People wanted one terminal that could access any host."

Deciding on what type of network to use is perhaps the biggest deterrent to most companies suffering from "analysis paralysis," but Chase was given a virtually risk-free opportunity to decide on the type of network it would use.

"We were Wang's [Laboratories, Inc.] second largest commercial customer," Hershkowitz explained. So, in late 1981, Chase agreed to become a beta test site for the newly developed Wangnet local-area network. "If it didn't work, we wouldn't buy the equipment," he said.

What is somewhat surprising about Chase's early entrance into local-area networking is the bank's size. It is the third largest commercial bank in the U.S. controlling more than $80 billion in assets. With more than 300 branches, it employs 36,000 people and extends its financial services to 100 locations worldwide. Despite what could have been a bureaucratic maze of committees in smaller organizations, Chase moved decisively into networking.

In fact, Chase was so certain that it needed some type of local network that it began laying broadband cables before Wangnet was selected. The bank knew that no matter what type of network it chose, the cable under the New York streets could be used. "We thought we should get as much bandwidth as possible for expansion, so we went with broadband cable," Hershkowitz said.

Wangnet (renamed Chase Cablenet internally) is a broadband local-area network using carrier-sense multiple access with collision detect (CSMA/CD). Its wide bandwidth ensured Chase easy expansion into voice, image and video, Hershkowitz said, and transmits data at 10M bit/sec.

How did Chase know it was time for a local-area network? To start with, there was a growth rate of 500 terminals per year just for Wang equipment and a total of more than 5,000 terminals already installed throughout the company. There already were multiple overlapping networks in place and Chase was spending approximately two million dollars each year just to install and move terminals within its buildings.

While no feasibility study was performed for Wangnet specifically, studies on networking already had been done which concluded that a single network was needed to replace the existing "spaghetti" network and support high-capacity transmission for a variety of traffic types. Because reducing the amount of cable in use was also a goal, the bank spent a considerable amount of time (as much as 60% to 70% of the total job) preparing space for cable runs.

Because Chase was a beta test site, "there were fewer meetings and fewer people involved than there normally would be in this case," explained Hershkowitz. "It would have taken longer if we had sent out a request for bids. It could have taken six months to a year." While being a test site had its advantages, there were unforeseeable problems with Wang in delivering the equipment throughout much of 1982. "The equipment came in very slowly," Hershkowitz said. "It took Wang longer than it should have."

With a plethora of terminals, networks and cables involved, "this had to be approved by senior management," according to another vice-president in operations and corporate systems, Ronald E. West. "We're due to report back to senior management in six months. Before we can expand to other buildings, we have to show that we're serving the bank's business needs and not our own interests in technology."

After senior management approval for a local network was secured, cable laid and a network selected, Chase began the job of implementation on a limited basis. "People were doing file transfer, inquiry and other applications," Hershkowitz said.

By the time the local network became operational last year, technocrats such as Hershkowitz and West had primed users with what they called "a marketing job."

"We asked people to volunteer to participate in the beta test. We looked for technical people who could handle it. Programmers were used at first and it spread to the end users," according to Hershkowitz. By the end of June, Chase had installed a dual broadband facility into its first four buildings, connecting riser cables to the trunking system in three of the buildings.

Chase Cablenet offers four service categories: private and dial-up line-equivalent services, Wangband, a peripheral band and a utility band.

- The private and dial-up equivalent offers up to 9,600 bit/sec transmission over point-to-point or multipoint, half-duplex or full-duplex, asynchronous or synchronous media through an RS-232, V.24 interface. With an RS-449 or V.25 interface, up to 64K bit/sec transmission speeds are achieved.
- Wangband offers a 10M bit/sec contention service for nine Wang VS, OIS and Alliance minicomputers. Two IBM 4300's and a handful of Wang and IBM personal computers also reside on Wangband.

• The peripheral band offers a multiplexing scheme which allows some 33 Wang products to be coupled to a host instead of hard-wired.

• The utility band offers up to seven video channels for teleconferencing or text and news dissemination, but teleconferencing is still in the testing phases with two rooms in use.

While the local area network is up and running, Hershkowitz warns that a network is not the answer to all communications problems. "The . . . [local-area network] does one thing for you," he said, "it allows IBM, DEC [Digital Equipment Corp.] and other equipment to connect but you still have to program the machines to talk to each other. Otherwise, it's like calling France on your telephone — you have a connection but you still can't speak the language."

The networking cost so far is estimated at a reasonable $500,000 by West, who expects several million dollars will be spent for future development. "We have a five year goal of recovering all money," West said. It will include a charge-back system to all users.

Maintenance costs will also be cut as Chase lessens its reliability on Wang for service by using in-house personnel.

With one of the first local-area networks in place, does Chase feel any buyer's remorse? After all, some industry pundits are touting the next generation of nonblocking private branch exchanges (PBX) as the preferred means of data networking and integrating voice and data.

"We have no regrets because we have a system that's up and running, and that's more than most people can say," Hershkowitz said. "We're looking at a new PBX, but it will coexist with Wangnet. Wangnet traffic is 10 megabits [per second] — no PBX can equal that speed."

West agreed. "We have a hybrid approach — we're not discounting PBX's," he explained. "We have vendors coming in with PBXs now." Chase scruntinizes a vendor's technology, its ability to support Chase Cablenet and voice and data integration. "When a vendor tries to sell only its own hardware, we tell them we want a system solution to our business problems," West said.

Chase is now using a AT&T's Centrex and with the January 1 divestiture of the phone company, "we'll be looking very closely at PBXs with the introduction of the new access charge," Hershkowitz said. Divestiture and voice/data integration have tossed monkey wrenches into many voice departments that were often running smoother than the data processing departments. "The voice people are a little worried about losing their customers to the data people," Hershkowitz said.

As West said, "We're forced to talk to the voice people now. There's always wars between voice and data."

But despite the wars, West anticipates electronic and voice mail capabilities on a PBX by 1985 or 1987. "We will certainly have downtown wired up," he said. "We want to come off the PBX and broadband cable and gateway to packet switching." It will be through advanced gateways that Chase will most likely provide its national and international networks to its 90 plus data centers.

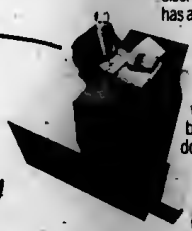
For medium-range voice and data communications, Hershkowitz expressed an interest in microwave links, but West said, "we're looking at other types of bypass technologies also."

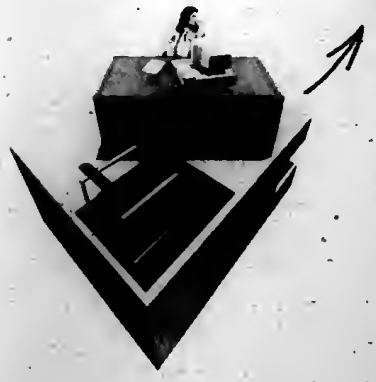
So what actually began as a strategic telecommunications plan for Chase in 1979 has developed into a fully functional local-area network and the start of an integrated voice/data network that most users and vendors only talk about. "We've decided the local area network works," Hershkowitz said. "We're into the expansion phase now."o

---

Jim Bartimo is senior writer for Infoworld, *a newsweekly based in Menlo Park, Calif.*

We bring everything in your office closer together. That's what puts Wang way ahead.





Let's face it. Making things work together is where most computer companies fall apart.

They talk about compatibility, while they deliver a family of products that relate to each other in name alone.

Quite simply, that's what separates Wang from everyone else. Because unlike everyone else, Wang has a family of products that is truly compatible. From personal computers. To word processors. To office information systems. To large computers.

And it stands to reason that when everything in your office works better together, everyone in your office does too.

As more people manage information and communicate it in more ways than ever before – in words, images, numbers and voice – it just makes sense to choose Wang.

Because Wang offers you total solutions that bring everything, and everyone, in your office closer together.

That's what puts Wang way ahead.

For a presentation on Wang office automation computers, call 1-800-225-9264. Or write to Wang Laboratories, Inc., Business Executive Center, One Industrial Avenue, Lowell, MA 01851.

WANG

The Office Automation Computer People.

CB4

© 1983 Wang Laboratories, Inc.

Large systems hardware is not an impulse buy.

Now there's a guide coming to you that will help with your homework.

The *Computerworld Buyer's Guide to Large System Hardware* is designed to give you a valuable, one-stop information source for large systems hardware and peripherals. Take a look at all the tools it will give you to help you make the right large systems choice:

- Large systems product listings, including mainframes, superminis, minis and small business systems and the terminals and peripherals designed to work with them. You'll get listings of printers, memory products, teleprinters, controllers, magnetic media and supplies, plotters, digitizers and much, much more.
- Vendor profiles that include company name, address, contact information, and primary markets served.
- An industry-specific editorial section that's designed to keep you right up to speed on the trends in large systems hardware. We'll give you news of the latest developments in mainframes, superminis and minis and their changing roles. You'll get information on the latest management techniques used in running data centers; planning for cost effectiveness and the new technologies in fifth generation computing.
- In addition to its comprehensive listings and editorial, the *Computerworld Buyer's Guide* will give you pages of detailed ads for large systems hardware products and peripherals that you can refer to all year long.

Each issue of the *Buyer's Guide* is updated before publication, and contains hundreds of listings that are accurate, complete and easy to use. This *Buyer's Guide to Large System Hardware* is distributed to *Computerworld's* 114,000 subscribers in the U.S. — it's one more of the additional benefits you get as part of your *Computerworld* subscription. Look for it this April 18th.

And if you market your products to buyers of large systems hardware and peripherals, this *Buyer's Guide* will reach them with your product message just when they're researching products and vendors. Reserve space in this *Buyer's Guide* by March 2nd by calling one of the sales offices listed below, or call Ed Marecki, National Sales Director or Kevin McPherson, Product Manager, at (617) 879-0700.

To: Ed Marecki, *National Sales Director*
CW Communications/Inc
Box 880
Framingham MA 01701

☐ *Please send me advertising information for Computerworld Buyer's Guides.*
☐ *Please have a sales representative call me*

Name _____
Title _____
Company _____
Address _____
City _____ *State* _____ *Zip* _____
Telephone _____ 3/2

COMPUTERWORLD
BUYER'S GUIDE

Sales Offices

BOSTON/Chris Lee Bill Cadigan, Alice Longley *(617) 879-0700*
CHICAGO/Chris Lee Bill Cadigan Jean Broderick *(312) 827-4433*
NEW YORK/Mike Masters, Tom Flynn, Gale M Paterno *(201) 967-1390*
ATLANTA/Mike Masters, Tom Flynn *(404) 394-0758*
SAN FRANCISCO/Bill Healey Ruth Gordon *(415) 421-7330*
LOS ANGELES/Bill Healey, Beverly Raus *(714) 261-1230*

looking for a means of controlling access to data bases and ways to perform file management.

Viewing a local-area network as a tool for connecting diverse communications equipment, rather than as a separate product, helps to put technological issues into perspective. Taking a top-down, applications-oriented approach can resolve the technological choices required in selecting the appropriate local network. From this stance, the technical choices are driven by the usage objectives. If, for example, the bulk of the usage is high-speed file transfers between two different hosts, then a point-to-point baseband system would be a good choice. Conversely, if the objective is to share expensive resources throughout a widely dispersed geographical area, point-to-point technology plainly will not work because the installation becomes a wiring zoo.

Users should also consider the usage needed when selecting the medium. If video is not necessary, then broadband technology is not necessary, or if geographic scope is necessary, then a baseband system will not be appropriate.

Because of the relative newness of local-area networks, the technological mire is really an issue of more concern to the vendor than it is to the user. Like other products on the market, users must begin to approach vendors of local-area networks with solutions in mind. Most local-area network vendors have different approaches to a network and by taking the solution approach, the user narrows the choices considerably. It is necessary for the vendor to describe what the local-area network will do for the organization.

Organizational considerations play a key role in determining user objectives. The study revealed distinct differences in personality, age, experience and systems-orientation among proponents of different technologies. These differences significantly impacted the network selection process.

Younger managers tend to be systems-oriented. They take a broad view in approaching the local network; therefore broadband-based systems appear to be more popular with these managers. On the other hand, older managers in industrial environments are not comfortable with a systems orientation and tend to select baseband systems. The selection process then seems to be significantly conditioned by managers' attitudes.

For example, several sites with a strong systems orientation did not even consider alternative technologies (thought to be less than state-of-the-art), although there was no immediate requirement for the more sophisticated approach.

Connection philosophies also were found to reflect organizational issues. Three distinct connection approaches were isolated:

- A classic integrated approach to local networks is one in which all devices are interfaced directly to a totally wired building. This would be preferred by users in Fortune 500 companies, high-technology companies, government or education-related endeavors.
- A limited hierarchical approach is one in which the building wiring is used only for connections between a central host and intermediate devices controlling groups of terminals and related equipment. An example is a factory-type setting.
- A piecemeal approach, similar to the classic PBX, consists of a trunk or utility system linking major buildings or concentrations of DP activity with equipment connected primarily through twisted-pair wire. Transaction-oriented systems are found in banking and insurance firms which have not yet integrated the technology into the total organization.

An organization that wants to incorporate a local-area network must further assess the usage the network will receive. In one case, a bank performed a traffic analysis for its proposed network. Once installed the bank experienced considerable degradation in its broadband network because there were 3,000 personal computers in the organization that had not been figured in the usage scheme. This was because the bank allowed micros to be purchased as office rather than computer equipment.

This problem is endemic in the industry. As soon as a local-area network is installed, equipment to hook into it comes out of the woodwork. Any user who does not figure on there being 30% more equipment than originally planned for is making a big mistake.

The decision to consider implementing a local-area network in an organization was often triggered by changes in the organization. Some of these changes included additions (such as an energy-management system or the installation of a new computer), construction of or a move into a new facility or anticipated expansions in programmable controllers or terminals. The initial consideration of the local-area network was emotional and not a product of careful planning and analysis. While the final decision to incorporate the local network is based on economics, the evaluation process tends to be emotional and confusing.

The archetypal decision-maker in this process was a manager confronted with the problems of supporting a large, growing installed base of devices, a number of host computers and frequent movement of devices with a need to avoid using masses of twisted-pair wire. And, if the manager who decides whether the organization will have a local-area network and what it will look like also initiates contact with the vendor, be is not generally a management information systems (MIS) manager. MIS is only starting to become involved with the issue of proliferating computer power. MIS generally figures heavily in the implementation process, but is often not the initiator.

Users found that local-area networks were a good means of alleviating the physical problems brought on by moves or additions to the installation. Recognizing the importance of planning for future

TELEVIDEO'S 970: GET IN ON THE ANSI BOOM.

The TeleVideo 970 Terminal. The computer professionals' most powerful way to utilize the advantages of ANSI X3.64 code structure.

The 970's 16 non-volatile function keys (shiftable to 32) literally automate ANSI code command entry. Other features include VT-100 compatibility, block mode operation, 32 non-embedded visual attributes and a reconfigurable keyboard. An RS232 printer port with built-in buffer is standard.

For operator comfort, the 970 keyboard offers a naturally contoured palm rest and sculpted keys, and non-glare 14-inch tiltable screen. You can utilize either the 80 column format, with 3 pages of memory, or 132 columns with 2 pages.

The 970. A combination of power, ease of use and TeleVideo reliability at a time you need it most. The ANSI boom is here. Get in on it with the TeleVideo 970.

Call us at (800) 538-8725 for more information. (In California call (408) 745-7760), or contact your nearest TeleVideo office.

California/Santa Ana	(714) 476-0244
California/Sunnyvale	(408) 745-7760
Georgia/Atlanta	(404) 447-1231
Illinois/Chicago	(312) 397-5400
Massachusetts/Boston	(617) 890-3282
New York/New York	(516) 496-4777
Texas/Dallas	(214) 258-6776
Central Europe (The Netherlands)	(31) 2503-35444
Northern Europe (United Kingdom)	(44) 9-905-6464
Southern Europe (France)	(33) 1-686-4412

GET IN ON THE BOOM™

TeleVideo® Terminals

TeleVideo Systems, Inc.

Service is available nationwide from General Electric Electronic Instrumentation and Computer Service Centers.
VT-100 is a registered trademark of Digital Equipment Corporation.

TYPICAL PER-USER BROADBAND LOCAL-AREA NETWORK COST ANALYSIS[1]

COST	BROADBAND	BASEBAND
I. HARD COSTS		
Wire, cable and taps	$ 233	$525
Computer port contention[2]	0	80
Modems	827	0
Interconnectivity[3]	0	200
TOTALS	$1,050	$805
II. SOFT COSTS		
User relocation[4]	$ 7	$ 25
Interhost message processing[5]	0	625
Additions[6]	86	200
Maintenance[7]	90	0
TOTALS	$183	$850
III. HARD PLUS SOFT COSTS		
Hard costs	$1,050	$ 850
Soft costs	183	850
TOTALS	$1,233	$1,655

Net annual savings using broadband over baseband: $422/user

FOOTNOTES:
[1] Costs based on figures supplied by three broadband and three baseband vendors for a hypothetical local-area network.
[2] 25%-50% reduction in required number of host ports.
[3] No patch panel or switch resources required.
[4] Assumes 25% of employees are relocated each year
[5] 5% of host processing resources.
[6] 10% growth annually.
[7] Assumes spares kept on site.

Chart Courtesy of Strategic, Inc.

expansion and capabilities, most users surveyed opted for broadband, not baseband networks. Typical connection patterns included asynchronous terminals to asynchronous processors, bisynchronous remote-batch terminals to bisynchronous processors, various IBM 3270 configurations and high-speed host-to-host file transfers.

But the issue of cost justification has been a knotty problem for all users surveyed. Typically, local-area networks cannot be justified solely on the basis of hard-cost savings. Its cost-justification must be based on a combination of hard costs, soft costs (such as frequent movement of devices) and less easily quantified but very real considerations of user access to resources, enhanced productivity and lowered frustration levels. Local networks offer easy relocation of devices, high reliability, reduced media costs, flexibility, easy growth paths and additional services, which will be increasingly important in coming years.

Local-area networks provide for distributed processing, peer-to-peer communications, reduction of "informatioo float" and, when the medium selected is broadband, video capabilities for conferences and training. The accompanying chart illustrates one technique for cost-justification of a broadband local-area network.

This analysis does not include further broadband local-area network savings derived from:

- Fewer expensive resources required.
- Labor savings from increased productivity.
- Savings due to extended computer life (postpones the necessity of upgrading to a larger host).
- Credit for ability to add video, security and alarms and additional applications. Because the payoff period is typically short, no return on investment computations have been included.

Vendor independence has emerged as a crucial concern. As is true with any innovation, the initial applications tend to be replacements for existing products and only after the new approacb has been in use for awhile are its unique applications and advantages exploited, such as electronic filing. To commit to a proprietary technology for the local-area network this early in the communications explosion (before IBM and AT&T have even actively entered this market) locks the user into a supplier's network-attachable products. Until IBM and AT&T enter the fray, it is unlikely that any single vendor will be able to provide the optimal solution for cur-

rent and future applications that will be interconnected through a local-area network.

Other concerns expressed by survey respondents included video capability, vendor stability, maturity of the technology (a big plus for broadband, which is essentially cable television technology), ruggedness, ease of expansion and flexibility and capacity.

As mentioned previously, product evaluation was strongly influenced by organizational factors and the far-sighted concern for video capability even when there were no immediate or short-term plans for implementing video. Interestingly enough, among the more than 50 sites surveyed, virtually none included word processing applications in the planning or decision-making phases, frequently resulting in sites with dedicated WP local-area networks not coordinated with nor able to communicate with the DP-based local-area network. Among leading end users, this parochial picture is changing as the emphasis shifts from local-area networks as a product to local-area networks as a protocol for facilitating communications.

Technical considerations among the existing installed base reflected the prevailing technical philosophy at the time the local-area network was installed. Thus in early installations point-to-point systems were the rule since stable, effective multipoint systems did not appear on the scene in quantity until 1980 and 1981. Subsequently, the majority of newer installations surveyed rejected point-to-point product offerings as passe regardless of suitability, based on either preferences for newer technology or understanding of the need to plan for unforeseen future requirements. They tended to want the latest technology whether it was appropriate or not.

For users who adopted local networks early, standards were not an issue. Their needs were sufficiently pressing and they could not afford to wait for standards to be developed. As is now abundantly evident by the multiplicity of IEEE 802.X proposed standards, the industry is still at least a year away from having even viable subsets of a cohesive standard and five years from having real standards. Large users look to IBM to set the standard in the near future.

Security issues, largely a factor only among the government and military sector in the sites surveyed, are rapidly becoming a concern for leading end users as local-area network usage becomes widespread. Hard on the heels of security are the legal implications — such as how to prove that a document which only exists in paperless form has not been tampered with. Large users are now planning or implementing security devices external to the network and are not requiring the network to provide automatic security itself.

Product evaluation is being impacted by the shift in user perception. Now, not only are cost and technical merits major factors, but increasingly the expansionary and interface characteristics of products are examined to ensure present and future compatibility in multivendor environments. Those firms engaged in long-range planning are evaluating local-area network proposals with an eye toward future migration onto optical fiber and development of hierarchical structures. An example of this is a series of inexpensive, dedicated baseband networks serving individual domains tied to a broadband backbone network which is, in turn, connected to fiber-optic links for intercity transmission.

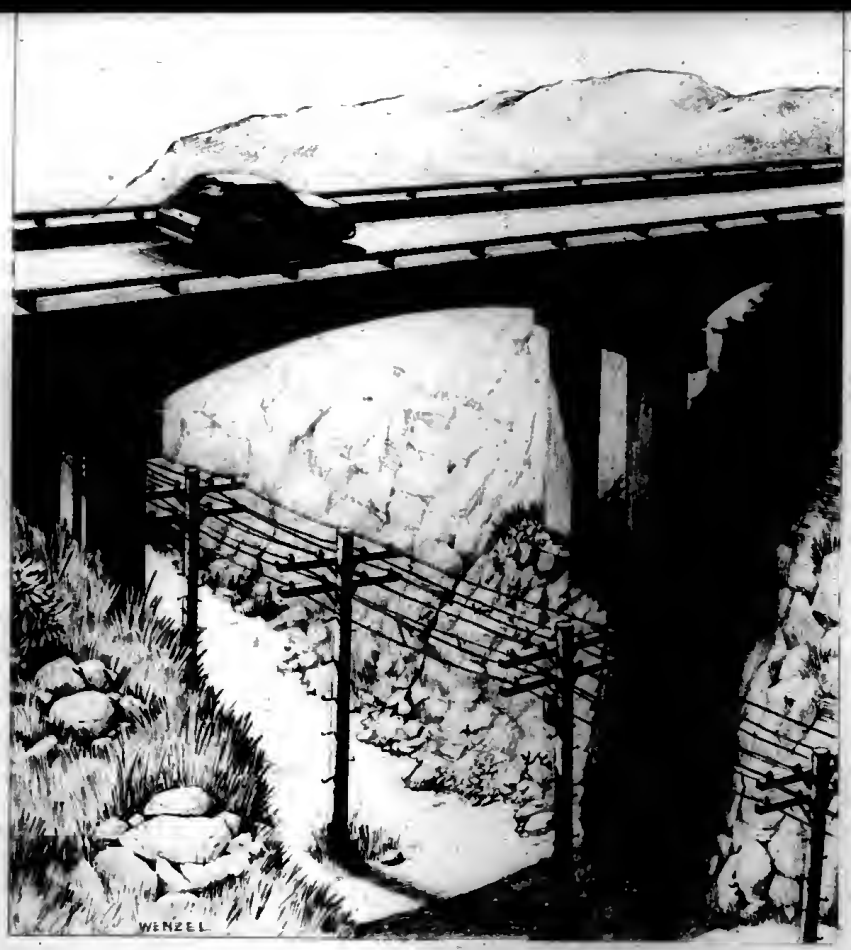
Technical innovations are occurring in the semiconductor field that will soon result in integral local-area network capability in the device itself rather than, as presently, in a stand-alone box between the device and the network. This change, combined with a trend toward totally wired buildings, will soon result in users plugging into the local-area network with any appropriate device in the same way as an appliance is plugged into household electricity when and where needed. The local-area network will be as transparent as electricity is now and network products will be portions of boards resident in the hosts, controllers and other devices.

In terms of trends in the world to come beyond 1990 the communications scenario can be viewed in terms of the size of the business. Small firms will have an inexpensive analog PBX and virtually no data networking, since their requirements are to share time, not resources. The market is sufficiently fragmented and the cost of individual sales calls is prohibitively high so large communications vendors cannot afford to pursue this market. Handing diskettes around is a physically viable and cost-effective alternative to communications networking.

Medium-size firms will have an analog PBX plus an inexpensive baseband local-area network or will have an integrated voice/data PBX to handle their data networking. Large firms will have integrated voice/data PBXs to handle voice requirements and some data applications plus a broadband local-area network for bulk data, video and intracity networking, such as connecting the metropolitan branches of a bank. These local network-PBX systems will coexist and be connected by gateways for maximum communications efficiency. Additionally, they may be augmented by wireless systems such as cellular radio, particularly for campus-type environments.

Local-area networks and PBXs are the "super glue" of today's local communications systems. By providing connectivity virtually without regard for device type, brand or application, local-area networks and PBXs facilitate and enhance effective, timely communications.□

Geddes is director of communication systems for Strategic, Inc., a San Jose, Calif.-based publishing, research and consulting firm specializing in high-technology industries.



On The Road With Bypass

By Walter Ulrich

The communication technologies which permit users to bypass traditional telephone company lines are emerging. Although many of these techniques are not yet commercially available or economical to use, they hold the promise of delivering a great deal of functionality at a reduced cost. Cellular mobile radio, digital termination systems (DTS) and cable television are some of the latest developments in the bypass arena.

This year will undoubtedly witness the most fundamental changes in communications since the telephone was invented in 1876. Activity in the communications marketplace and the regulatory environment and new technology innovations are converging and these changes will tremendously alter the flexibility and cost of communications services.

Fifteen years ago, you could buy communication services from any

ILLUSTRATION BY GREG WENZEL

company — as long as it was part of the Bell system. In 1969, the Federal Communications Commission (FCC) voted that a Texas businessman, named Carter, would be permitted to tap telephone lines using an accoustic coupler. On January 1 of this year AT&T gave up the Bell name and divested itself of its seven operating companies. Today, the FCC's efforts at deregulation are nearly complete.

In addition to marketplace and regulatory change, there have been great advances in communication technologies. The concept of digital termination systems (DTS) was introduced in 1978; today they are becoming a reality. Cable TV has successfully penetrated many households in the U.S., but vendors are only beginning to offer two-way cable to businesses. The first cellular mobile radio system went into full operation last October. As satellites become more powerful, satellite-to-office communications becomes more feasible.

Communication managers have long complained that it is easier to transmit data 3,000 miles across the country than it is to move it from their office to the long-haul facility. Furthermore, the restructuring of the communications industry will mandate an increase in the cost of traditional local-loop services. Alternative local-loop communications, commonly referred to as bypass techniques because they bypass traditional local exchanges, offer solutions to the connection and cost problems.

vices. Alternative local-loop communications, commonly referred to as bypass techniques because they bypass traditional local exchanges, offer solutions to the connection and cost problems.

The traditional telephone plant is just not capable of providing the speed, quantity and quality of communication services needed by today's information-heavy businesses. In some cities higher bandwidth communication services are either unavailable or have unacceptable lead times for installation. The reliability and quality of lines that are suitable for voice communications may be entirely unsatisfactory for handling data. In some cases, the time to repair older equipment and circuits can be a matter of weeks.

In past years almost no one could predict either their unit cost of communications or their total communications bill. Tariff charges from the Bell companies are not subject to negotiation and could not be predicted. The communications director, charged with managing corporate communication costs, could not control the most basic element of that cost — the price of communication services. Bypass ends that worry.

Alternate technologies allow communications managers to negotiate communication costs and establish prices for years to come. Furthermore, the communications department can make capital investments in some forms of communications technologies that will allow them to fix the costs of bypassing certain local exchange services. The ability to control communication costs for the first time may be the strongest single justification for making the move to bypass technology.

Controlling local-loop communication costs is becoming more important. The cost of traditional local-loop services is increasing. Prior to the breakup of AT&T, long-distance services helped support local-loop services. The price of local exchange services was therefore artificially lower. Now, with the divestiture of the operating companies, local and long-distance services must pay for themselves. Charges for local services will increase and charges for some long distance services will decrease. Prudent companies should be exploring alternatives for both local-loop and long-haul communications.

An introduction and description of some of the leading bypass technologies follows:

Microwave and Digital Termination Systems. Private microwave is probably the oldest of the bypass technologies and the forerunner to the current communications revolution. Over the years, private microwave has gone from an exclusively analog format to now over 50% digital transmission. Digital microwave is clearly preferred for distances under 200 miles. Because of crowding in the private microwave spectrum, the FCC has allocated additional slots in the 18-GHz region. Where spectrum space is available, private microwave still makes sense for companies that have a large volume of point-to-point communications.

One new kind of microwave communications that has attracted a lot of attention is called the digital termination system. In the late 1970s, Litton Industries applied to the FCC for allocation of the microwave spectrum in the 10.55- to 10.68-GHz range. Litton wanted this bandwidth assigned for microwave cooking ovens because of its superior qualities for browning meat. Xerox Corp. had a better idea, however — it petitioned the FCC to set aside those frequencies for data communication services.

Xerox called their new communication service Xten. Xerox envisioned an office of the future where large numbers of documents would have to be transmitted between company locations. Communications bandwidth would be necessary to support this view of the office of the future. Fortunately, the FCC agreed that data communications was more important than browned meat.

The full concept of Xten included communicating from the local common carrier directly to a long distance carrier. That full concept has come to be called digital electronic message services (Dems). The part of Xten that bypasses the local loop is called a digital termination system. The DTS carrier for a community would position a multidirectional antenna on the top of a tall building. The carrier would then be able to transmit, as well as receive, high-bandwidth communications between itself

and its subscribers.

In 1980, an experiment was performed to validate the service concept. San Francisco and Manhattan were picked as the local areas. Tymnet, Inc. and LDD (a subsidiary of M/A-COM, Inc.) provided the microwave communications between subscribers and a central facility and San Francisco. From an earth station at Embarcadero Center long-haul transmission via a Satellite Business Systems satellite was accomplished. The information was received in New York City where it was distributed by Manhattan Cable Vision to offices. San Francisco was deemed an ideal place to test DTS because of its hills and its fog.

The experiment was a great success. The error rate was always better than one bit error in every 10^8 bits and was often better than one bit error in every 10^{11} bits.

The FCC has established two kinds of communication carriers for DTS — extended carriers and limited carriers. An extended carrier must provide services in at least 30 cities and must commence offering services within 60 months of its approval. A bandwidth of 10 MHz, 5 MHz in each direction, is assigned in each community for subscriber communications. Spectrum allocation is available for seven extended carriers in any one city. Limited carriers need to provide communication services in only one city and to less than 30 cities. A limited carrier must commence providing services within 30 months of its approval by the FCC. There is sufficient bandwidth available so that six carriers may be offering limited services in any one location. Limited carriers can only offer 5 MHz transmission, 2.5 MHz in each direction, to their subscribers.

The FCC will only authorize carriers to operate in the DTS spectrum. Therefore, a company will not be permitted to use DTS to meet its internal needs exclusively. However, DTS carriers may seek to satisfy their internal communication requirements first, and then they must sell excess capacity to the public.

DTS services are line-of-sight services. To reach some locations in some cities, a single DTS transmitting location may be insufficient. A DTS repeater station or alternate communication technologies, like cable, may be used to reach locations that are otherwise blocked by high buildings or other obstacles.

DTS services are best suited for data communications and will compete with AT&T's Dataphone Digital Service. Even though DTS services are only now being implemented, their economies have been improving. Three years ago, it was universally agreed that the economics for DTS made it suitable only for data transmission. The cost of DTS has been declining and it appears that DTS may soon be suitable for voice communications. The capital cost for a DTS station has fallen by more than 50% in the last 12 months. DTS is an important bypass technology and it will help many companies to reduce the unit cost of their local communication transmissions.

Cable TV. Coaxial cable has broad applicability for communications for both the local-area network (within a facility) and the local loop (from a facility across town).

The typical cable TV franchise operates with the capacity of 56 to 108 full-motion video channels with bandwidths ranging from 330 to 440 MHz. Most of the original cable TV installations provide only one-way transmission from the cable carrier into the home.

Modern cable TV installation provides for two-way communications. Manhattan Cable Vision, in New York, is an example of what can be done using cable TV technology to support business. Its customers include Bankers Trust Co.; Citibank N.A.; Manufacturers Hanover Trust Co.; Shearson/American Express, Inc.; the city of New York; and Wang Laboratories, Inc. The service provides digital data circuits to their customers ranging from 4,800 bit/sec to 1.544M bit/sec (or T-1). Where coaxial cable runs past a building, it can be very economical for communications.

Cellular Mobile Radio. Traditionally, mobile telephone service was provided by a single high-power antenna in the heart of a city. Mobile telephone services have not been without their problems. A vehicle at the outskirts of a city or moving behind tall buildings would often experience interference. Mobile telephone service typically had only 12 or 24 channels and could reasonably support only 500 to 1000 subscribers. During peak times of the day, there would be a fifteen minute wait before the subscriber was able to place a call. To minimize those delays, new subscribers were put on waiting lists, with a several years' wait required in some cities.

Cellular mobile radio promises to correct these deficiencies. Each community is broken up into a number of cells and a low-power antenna is placed in each cell. When a driver goes from one cell to the next, the system automatically senses that the signal is becoming stronger in the adjacent cell. The system then switches the transmission from the first cell to the second one. This switch happens so effectively that a subscriber rarely notices it and gets a relatively uniform signal. There may be many cells within a city, and frequencies can be reused from cell to cell. This frequency reuse makes it possible to service many more subscribers, perhaps as many as 100,000 in some locations.

The cost to subscribe to a cellular mobile radio system is about $200 per month today. That cost includes the amortization of the hardware and the subscription fees. Many analysts expect that cost to be halved by 1985 and perhaps fall to as little as $25 to $50 per month some day. If that occurs, an argument can be made that cellular mobile radio may in fact replace the copper wiring that is go-

ing into homes today.

In the near future, cellular mobile radio will make much more telephone service available as well as at a lower price. This fortunate phenomenon will make it much more feasible to establish data communication services between vehicles and offices. Vehicle data communication schemes, based on the AlohaNet research, make very effective use of mobile radio bandwidth.

More New Communications

FM radio stations have a new, valuable data communication franchise because of changing technology and regulation. The FCC has approved FM radio stations to offer 200 KHz of subcarrier bandwidth for communications resale. These subcarrier communications make sense where companies have to broadcast specific information to a large number of locations. For example, some companies are transmitting stock information in this way to specialized portable terminals, so that businessmen can monitor the performance of their stocks. This is the communication technology that comes closest to making Dick Tracy's wrist radio a reality. A self-contained FM station may be able to install subcarrier equipment for as little as $5,000 to $7,000. That is a very modest investment to make 200 KHz of communications bandwidth available on a broadcast basis.

Satellites have been used to bypass long-haul terrestrial facilities for several years. Thanks to the space shuttle, it has become both easier and cheaper to launch satellites. As satellites become larger and more powerful, the need for large satellite earth stations decreases. As the diameter of a satellite receiver shrinks to approximately two feet, it then becomes feasible to not only bypass long-haul, but also local-loop facilities. The electronics are complicated, but very large-scale integrated circuits promise to bring down their costs. In addition, when earth stations become inexpensive enough, companies will broadcast directly from satellites to the receiving location. Finally, the FCC has recognized direct broadcast satellites (at least for home use) and has allocated the 12.2 to 12.7 GHz region for such satellites.

Infrared and even visible light offer communication alternatives over relatively short distances. For example, the cost to transmit data across a street may be prohibitive in some cities. If a line of sight can be established between two buildings across the street, then infrared or visible light may provide a communications solution.

Fiber optics is another technology that promises to transmit great bandwidth with great accuracy. Electrical interference is not a problem with fiber optics, so the accuracy of the transmission is excellent. Unfortunately, the techniques for splicing and tapping optical fibers have not been refined, which limits their effectiveness over short distances. Over longer distances, fiber optics makes sense and plays an important role in at least one of the new teleports.

Teleports are not a communication technology, but represent the bundling of communication technologies in a useful way. As its name implies, a teleport is a place where communications facilities are concentrated. A teleport might have several earth stations pointing to several different satellites. Then, bypass technologies would be used to distribute the long-haul communications to businesses within nearby communities.

The best known teleport is the joint venture between Merrill Lynch, Pierce, Fenner and Smith, Inc. and the Port Authority of New York and New Jersey. This group is building a satellite earth station complex on Staten Island, with earth stations directed toward many major satellites. From Staten Island, they are stringing fiber-optic cables through the Port Authority Trans Hudson (Path) tubes into the major centers in Manhattan. Selected cities will be served in New Jersey along the Path route as well, including Jersey City and Hoboken. A teleport, then, is a consortium of communication services designed to provide the local region with a variety of voice, data and video communications while bypassing traditional communication facilities. Teleports are springing up in a number of major cities.

Which bypass technology should the buyer select? Probably several of them. Smart companies will be mixing and matching their local and long-distance communication technologies to meet their particular communications profile. The bandwidth, flexibility and economics of various bypass technologies may well mandate that several different technologies will be used in any one city and that all the bypass technologies will be used in one place or another within the overall corporate network. Information is so essential to modern companies that their very survival may depend upon a sound communication strategy.

Communication costs are changing dramatically. If companies fail to take advantage of new communication technologies, their cost per unit of communications will increase — perhaps significantly. On the other hand, the new communication technologies hold out the promise of reducing the cost per unit of communications. Bypass and other new communication technologies will provide more communication power, new services, greater flexibility, and lower costs than every before. Companies must control their communication destiny. For the first time bypass technologies for the local loop are beginning to offer an economical, feasible communications pathways.□

Ulrich is president of Walter E. Ulrich Consulting, located in Houston, Texas. His consulting activities include the convergence of computers and communications. Ulrich is also chairman of Interconnections '84, the national conference of the Independent Computer Consultants Association.

LEONARD Kleinrock

By Marcia Blumenthal

Leonard Kleinrock is a one man communications network. He is a professor in the computer science department at the University of California at Los Angeles. Almost constantly on the move, Kleinrock traverses the country conducting numerous data communications courses for information processing managers through Technology Transfer Institute, a conference management firm of which he is president. A lively speaker, Kleinrock is a well known participant at major industry conferences.

His research interests focus on computer networks, packet switching, and local area networks.

INTERVIEW

How would you characterize today's data communications environment?

Right now it's a zoo. Many technological possibilities are being explored by scientists and the outlook for new products is enormous, but nothing has settled down yet.

There are four groups of players in this environment, each pushing its own goals. The scientists are constantly coming up with new ideas, each of which appears to dominate previous ideas. But these ideas are two or three years away from products. Then there are the vendors who want the scientists to make up their minds so they can transfer the idea onto silicon and sell it.

The users are sitting around waiting for delivery on all these lovely new products they've been promised. And the standards organizations are caving in to vendors and users who keep saying they need standards, but have no idea what they should be.

One opportunity is that we are finally seeing the convergence of data processing and communications, but it's taken more than a decade for that to occur.

What is causing this convergence?

Integrated chips. Data communications needs intelligence in its products and information processing needs communications for distributed systems. It's hard to separate them right now. We are becoming a world of interconnected computer networks.

Wide-area networks using packet-switching technology have been around since the early 1970s, but it took the telephone company [AT&T] 13 years before it started offering this service through its ACS/Net 1000.

What's on the horizon for the user?

All the technology is on the horizon — local-area, metropolitan and international networks, fiber optics, cellular radio and so forth, but except for long-haul networks the products are not here yet.

With all this uncertainty, what advice do you have for users wishing to install advanced data communications products, such as local-area networks?

Users who are looking at products such as local-area networks have to recognize that if they opt for a particular product now, in two or three years there will be a new set of standards and products which may not be compatible with what they select now. They may have to rip out what they put in today and replace it — not the wiring but the interfacing.

If I were a corporate executive making the decision today, I would ask whether the system would pay for itself in two or three years. If so, then there is no question about installing a local net, but if it won't pay for itself the decision becomes harder. It's an interesting calculation because corporations that delay adopting advanced communications techniques now may lose far more in lost opportunity than the cost of the investment.

Do you see more users making the move to install local networks?

Some are and some are not. Today, most organizations are not installing local networks on a production basis. They are installing them on a limited, experimental basis. Most are using the classic PBX as a switch because the machine is already in place.

But despite the user's current hesitation in installing local nets, anyone building a new facility should put in the appropriate duct work for whatever cabling comes along in the future — and that includes fiber optics.

Since this switching equipment is in place, does this mean the star configuration will prevail?

People are moving in this direction because they are familiar with it. The star, which transfers data at about 64K byte/sec, is fine for most needs, but not all. It won't handle teleconferencing and it's slow when moving files around. More than likely, terminals will be intelligent workstations with possibly a 10M-byte hard disk. And if the central switch fails, no one can talk to one another.

On the other hand, vendors of these branch exchanges have been very good about building highly reliable devices using modular redundancy. There are high up-front costs with these devices, but it is a competitive technology.

Incidentally, IBM is taking an interesting approach with its ring wiring concentrators. By running wires out to a terminal and back to its cabinet, IBM makes the network look like a star, but it is really a ring. All the maintenance and configuration changes can be done from the cabinet.

What is keeping people from installing local networks on a production basis?

It is the lack of stabilization. Standards are just beginning to be approved. Chip sets are beginning to appear now. People don't want to be guinea pigs, so they are willing to run experiments, but not commit a corporation's basic operation to any particular product.

Another question users have with local networks is whether they are committed to a particular vendor's office automation solution if they opt for that vendor's local net. In a lot of cases the answer is yes and organizations are not pleased with this prospect and are waiting for a universal local net.

What is the outlook for a universal network?

This standards business is going to be around for a long time. We will never get out of it completely or have complete standardization. There is enormous opportunity for conversion products.

A hot product area today is

"bridges and gateways." A gateway is a device that connects two networks which have different protocols while a bridge is a device that connects two networks that have similar characteristics. The user pays more for that device and loses some efficiency, but it's an interim solution and we'll be in this environment for some time to come.

Do you see any one system which is better than most?

The best system depends on the parameters of the applications. Parameters include the bandwidth you need, the length of cable, how many bits will be sent in a block, the number of devices to be attached and so forth.

Some vendors are offering products that will not grow well as bandwith expands and longer cables become available. For example, [Xerox Corp.'s] Ethernet using CSMA/CD [carrier-sense multiple access/collision detect] does not operate well as bandwidth goes up, yet it has its place in the applications spectrum where it works. So with an Ethernet-based system you may eventually need more than one network.

Hiring a consultant is a good way of assisting in the purchase decision. But not all consultants are prepared to carry out a complete performance evaluation which describes where the system will begin to fail or where its limits are. And some consultants are committed to one vendor's approach. Users should hire a consultant who can challenge vendors.

How close to commercial reality is fiber-optics transmission?

As I mentioned before, anyone planning a new facility should install the ducts for fiber optics. This technology is very fast for point-to-point transmission — you can send the entire Webster's unabridged dictionary in a few seconds. Fiber optics carries light better than copper wire carries electricity. It offers the potential for enormous bandwidth, low error rates and it is immune to electromagnetic interference, a feature the military and government find very attractive.

But we don't know how to tap into it without a lot of loss and expense. If 10 taps are put in along the line, the power coming out the end of the line is about 1/1,000 of what went in. The tapping will take about three to four years to solve.

For the user it's clearly an issue of economics. The organization doesn't care how exotic the medium is, but whether it is cost-effective for the bandwith as well as being expandable. It can be a string and a can as long as it does the right job. The question is how much these taps cost — do you need a few gigabytes per second or can you live with 50M byte/sec?

It seems like videoconferencing is not as promising a network feature as was predicted. Are there other features which were being touted in the past that may not be as necessary now as once thought?

Video is not an enormous need right now. It's important for certain applications, but not too many corporate applications.

Clearly textual transmission is needed and facsimile is useful. Voice and data are certainly something that is needed, but whether they should be integrated is another question. When speech understanding technology is perfected there will be a greater need to mix voice and data.

Certainly the user would prefer to use a single terminal to initiate communications, but whether all transmission must go over the same wire is still a question.

The user has to be sensitive to the possibility of overbuilding the communications plant.

What will the organization's communications network look like in the future?

It's my guess at the lowest level there will be a shared logic machine; like a supermicro, that will serve from four to 16 people in a local cluster, perhaps acting as a file server. There will be a collection of these devices on a floor, communicating through a cable to other floors, coming into a computerized branch exchange.

From here the information would move into a metropolitan network, with gateways to value-added networks and satellites. Unfortunately the metropolitan network is confusing and users will have to wait a number of years before vendors provide metropolitan networks. Cellular radio, for example, is in its infancy and it is not yet determined how it will serve communications.

Unfortunately, the communications issue can become a nightmare, much like what has happened with the personal computer.

How do you prevent this?

There have to be changes in the corporate organization which recognize the information resource manager as a high-level executive. This person would be well-versed in information processing and data communications, disciplines which in many instances are separate today. These two specialities must be melded.

Are there any other changes that have to be made?

Issues in communications, particularly local nets, are largely hardware and protocol-oriented, but systems software must be considered. There is an enormous installed base of Cobol-based programs, but building these applications is a slow process. With increased on-line transactions necessary and users connecting into local networks to access corporate data, the organization must embrace the new generation of applications development and data base products.

The most popular personal computer software products are very user friendly. Building user-friendly interfaces is probably the most difficult task necessary for solving this problem. This type of system is more than five years away.

ILLUSTRATION BY JOHN KILROY

ENCRYPTION: Securing The Fortress

By Laura Brown Schlafly

In 1977, personnel at the U.S. Federal Reserve Bank in Minneapolis verified by secret password an apparently legitimate request to transfer funds to a Georgia bank account, which they later learned belonged to a wire-fraud expert.

In 1982, Japan's Nippon Telephone and Telegraph Co. found its lines being tapped and its data stolen by a credit card forgery ring.

Last year, in Los Angeles, a 19-year-old University of California student used his

home computer to break into a Defense Department communications system.

And a few months ago in Fort Lauderdale, Fla., two computer technicians manipulated a personal computer and a push-button telephone to penetrate the computer files of IBM; Sears, Roebuck and Co.; Gould, Inc.; and *The Miami Herald*

In these and in many other incidents of unauthorized computer access, information processing experts noted how easily the wrongdoers, especially the novices and hackers, gained entry into various data transfer networks. Speculation continues as never before on the numbers of such incidents both undetected or unreported as well as on the potential capabilities of a truly expert computer thief.

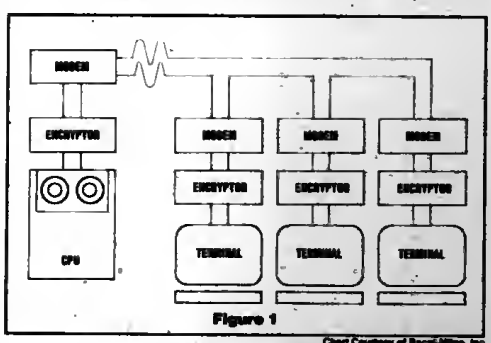


Figure 1

Chart Courtesy of Racal-Milgo, Inc.

The reality of computer crime and accidental access to any data bank cannot be overstated today, particularly in light of the ever-increasing volumes of computer data gathered and stored not just for government and business purposes, but also for personal reasons. Current industry estimates of such losses range from $100 million to $3 billion annually. More than a few industry observers predict that computer crime will generate catastrophic losses for some financial and corporate organizations by mid-decade, regardless of precautions. To the extent computer security increases, so will the expertise of computer thieves. Although advanced security techniques may reduce the number of perpetrators and the crimes they commit, it may also vastly escalate the losses they create because only the true professional gambling for a high payoff will risk invasion of the system.

The best deterrents to computer crime today include site controls, personnel controls, password controls, file access controls and other controls, not the least of which is securing computer data during transmission. Each deterrent is far too extensive a subject to cover in depth here, and the discussion that follows will be confined to safeguarding computer data during transmission. A problem with computer data, either stored or in transit, is that it cannot be seen. Therefore its loss, intentional or otherwise, can be easily overlooked. Both the programs that perform the processing and the transmission of data are invisible to the human eye. At best they are magnetic spots on tape or disks, or electrical impulses being transmitted through a computer and over its data communications network. Understandably they receive less scrutiny than office paperwork or fixed assets.

In fact, of the five very general computer functions — input, programming, processing, output and data communications — the latter is said to be one of the most vulnerable to penetration and theft. Data communications systems of various magnitudes serve most government, commercial, industrial and financial organizations today.

Computer crime experts claim many data thefts, manipulations and inadvertent losses go unreported each year. The most frequently cited reason is publicity. Widespread knowledge of such incidents would cause great embarrassment in most cases, not to mention possible liabilities. Like cash, property, production techniques, personnel and goodwill, information is considered a major corporate and organizational asset. Its loss or alteration may prove just as serious, or more so, as the loss of any other asset. Personnel data, for example, must be safeguarded under the Privacy Act of 1974. Other confidential data concerning customers and clients, accounting, financial planning, marketing strategies, designs, research and development, production techniques and other operational areas are, in most cases, sufficiently important to be safeguarded, particularly if transmitted over data communications networks.

Most networks transmit a considerable amount of information of a sensitive or proprietary nature. Criminal access can be gained by accessing an organization's own terminals, by attaching foreign terminals or communications devices directly to the data communications phone lines or merely by dialing into a computer site having autoanswer equipment. Virtually any point in the communications links may be vulnerable through a dial up port at an outside time-sharing house, at a point near the CPU facility or at an unattended communications facility. In addition, communications interception kits for data theft or manipulation can be assembled inexpensively. Powerful minicomputers, which can be leased, can also be programmed and used to dial into a system and masquerade as an authentic terminal, apparently conducting routine business transac-

tions with the computer.

The only adequate safeguard against the theft or inadvertent, unauthorized access of data being transmitted over various media is data encryption. This singular method renders data incomprehensible and useless if lost or intercepted. Some equipment also stores the data in encrypted form. Encryption proves highly effective in maintaining data security when data communications messages are mistakenly misrouted, in the protection of computer readable ID card passwords and in offering the utility for digitally signing messages.

Unfortunately for many users the acceptance of data encryption has grown slowly. The failure to use encryption during data transmission may well be the result of users not understanding the need. The situation might be analogous to a time when increasing numbers of bank robberies and their attendant publicity created the need for armed guards and armored trucks. Or a time when commercial, industrial and institutional break-ins and burglaries created the need for better site controls and more sophisticated security staffs. The fact is that many organizations do not perceive proprietary data in transit as a high-risk factor.

Banks know better. In fact, the heaviest users of data encryption are banks and other financial institutions. Bank transactions in which depositors' personal identification numbers are transmitted must use encryption. And many members of the banking community agree that unless the integrity of data in other financial and business areas is similarly secured, encryption may one day be required — either by regulation or legislation. The reason being that a company's board of directors, for example, might well be held personally responsible for the loss of assets. Shareholder, customer and other affected interests might well seek legal remedy.

Another possible reason for the slow acceptance of data encryption is the misperceptions by users of its cost and usage. In a recent trade publication article, for example, an industry observer voiced concern over the low price of large-scale integrated chips used in the design of encryptors and the comparatively high price of the encryptors themselves. The same criticism might be made of the price for an automotive starter motor and the price of the automobile on a dealer's showroom floor. A great deal of design and engineering go into the finished product, as does manufacturing — plus personnel time and talents.

Few data encryption vendors, if any, would place themselves in a defensive position over pricing. A low to medium four-figure price for a highly advanced data encryption device can be justified to protect the enormous tangible and intangible value of proprietary and confidential data, just as the price of a computer can be justified to store and provide various uses of the data. That the price of an encryptor sometimes exceeds the price of the terminal device it supports is another invalid criticism.

The functions of the encryptor and the terminal cannot be compared. They are functionally and conceptually unrelated. To pay less in some instances for certain terminals than their encryption devices is perhaps no different than to pay less for the doors of one's home than for the surveillance or alarm systems that guard them. The decision to buy or not to buy must be based upon the value one places on the content of the data.

Figure 1, on page 36, and Figure 2, on the left, show two simplistic network situations that might help many users in considering encryption costs. In the configurations shown, the encryptors are the interface between modems and data terminal equipment. According to industry research data, the average per-unit price of an encryption device is $2,200 without options such as diagnostics or special encryption key management features. Central site, master units typically cost more than remote devices because they are designed to serve many remote units. A reasonable average price to expect in Figure 1 would be $2,500 per central unit and somewhat less for each remote, or just under $5,000 per link. A price of $2,500 for the master and $2,050 for each added remote would, in fact, be very competitive.

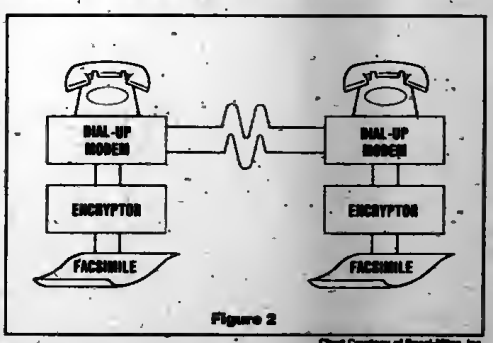


Figure 2

Chart Courtesy of Russell-Hodges, Inc.

Figure 2 shows a dial-up configuration, and while nearly all encryptors can be used on circuit-switched, dial-up networks, some are designed specifically for that purpose, as well as for other special purposes. The dial-ups, for example, may be designed to create and download new transmission session keys for each modem connection and, when the modems disconnect at the session's end, to erase the keys at each end of the link. Special designs will typically

raise the industry-average, per-unit prices — and also significantly increase the security of the data link. Quantity purchases of encryptors will, of course, lower the average per-unit prices cited above.

As to the actual usage of an encryption device, most competitive models are no more complicated to operate than hand-held calculators. User apprehensions about extensive and specialiazed personnel training is unfounded. Most vendors, in fact, provide the necessary operational training, which is minimal. Most also provide field service support.

More germane to usage concerns are considerations of the encryptor's size and operational integrity. Obviously the physical size of encryptors varies from veodor to vendor, as do special requirements for any given application. Because eocryptors typically interface at modem locations the size factor must be taken into account during user evaluations. Moreover, encryption devices are yet another insertion in the communications medium aod results io a data tate delay. This phenomeoon heightens the importance of operational integrity.

While the actual use of encryption devices presents little or no difficulty, the way they operate involves many complexities. Io order to make data uniotelligible for transmission, encryptors break down data into the simplest possible form, which consists of a bit, that is, either a "1" or a "0." Encryptors then modify single bits or bytes, depending upon their design. The modification process follows the rule of an algorithm, which by definition is a fixed procedure for step-by-step problem solving, or in this case for step-by-step transformations and permutations of bits or bytes. An untried, unproven algorithm may obviously lack operational integrity and fall victim to cryptanalysis, which is the technique used to decipher messages, in this case for illegal or unauthorized purposes. Such algorithms as those found in certain scramblers, for example, are highly predictable in their mathematical transformation procedures and cannot withstand the best efforts of cryptanalysis. Today's most tested and proven algorithm for commercial and industrial use, as well as for nonclassified governmental use, is called the Data Encryption Standard (DES).

In 1977, the National Bureau of Standards agreed upon the DES algorithm for such uses. In the DES algorithm, the encryption of plain text into unintelligible cipher text for transmission is based upon a series of 72 quadrillion transformation combinations. The specific combination chosen for a given encryption process is called the key, which remains secret to the user. Some encryption experts estimate it would take hundreds of years for an eavesdropper to search out all the possible key combinations (72 quadrillion) made possible by the DES algorithm. And should that problem not seem sufficiently difficult, an encryption device user might then use the secret key once or a few times, theo change it — or use the DES algorithm to encrypt data twice, which would extend the key possibilities from 72 quadrillion (2^{56}) to what might be called the semi-infinite (2^{112}).

Manufacturers that offer DES algorithm-based devices include Paradyne Corp., IBM, Analytics, Racal-Milgo, Inc. and others. Although the devices made by such companies are based upon different applicatiuns, techniques, and equipment arrangements, they display many similarities. Each uses the DES algorithm, as noted. Eacb requires the placement of encryptors (which encrypt and decrypt in the same sense modems modulate and demodulate) oo the data flow between computers and terminals. Io the DES algorithm of such devices, a 56-bit key is used to transform data before transmission and after recepuon. Because the 56-bit key must be in the possession of both sender and receiver, a significant problem is how to safely transmit that key from one to the other — and to change it frequently enough and retransmit it to keep the data secure.

Ordinarily the secret key must be set or loaded ioto the encryption devices at each end of the data link without anyone gaining knowledge of the key's value. And the key must always lend itself to modification by the user at both ends of the communication link. Therefore the security of data encryption devices depends almost exclusively upon key management, that is, upon the secrecy of the key and upon its physical distribuuon by courier or mail, which may prove perfectly adequate for some users' needs.

For other users, a more sophisticated key management scheme is desired. This can operate on what may be described as a two-level key hierarchy. In standard operation, the secret "working" key, or data encrypting key, is contained in botb a central encryptof at the computer center and in the remote encryptors. This key encrypts and decrypts data using the DES algorithm. A "master" key, or key-encrypting key, is also used at each site, central and remote, to enerypt the working key as it is transmitted over a link. In this way the working keys cao be randomly generated or downloaded. And with the master key they can be changed at any ume. This brings up a potential problem: if the working key can be encrypted by the master key, what if the user wanted to charige the master key itself? At this point, distribution of a new master key would again be necessary by mail or courier.

One way around the key management problem is public-key cryptography. For key management purposes, Racal-Milgo's encryption devices, called Datacryptors, use a cryptographic method called public-key cryptography. The public-key method is used to electronically distribute secure master keys to remote sites, which permits frequents changes of master keys. Very generally, this meth-

od uses two separate keys of its own, a private key and a public key, for the encryption and decryption of data — not main-channel data, but key management data. Only the private key can decrypt messages encrypted by the public key. Public key cryptography had been a theoretical subject confined to academic discussion for many years. The method is based upon the generation of extremely large and random prime numbers for use in the public key encryption and decryption processes. The hardware and other necessities to generate very rapidly such primes was designed and developed by Racal-Milgo in mid-1981.

Another feature for users to consider is whether the encryption device they select is protocol-sensitive or protocol-transparent. Transparency appears to be the more desirable method for flexibility and versatility. Transparent encryptors operate on a method called single-bit cipher feedback, in which single bits of data, as earlier described, rather than characters, are encrypted and decrypted. In this way the encryptor remains free of any hardware and software constraints. It can remain in place as computer networks expand or change, and it will require no retrofitting or reconfiguration. Such devices operate at data rates of up to 112K bit/sec, half- or full-duplex, and on either leased or dial-up telephone lines, or over microwave and satellite links.

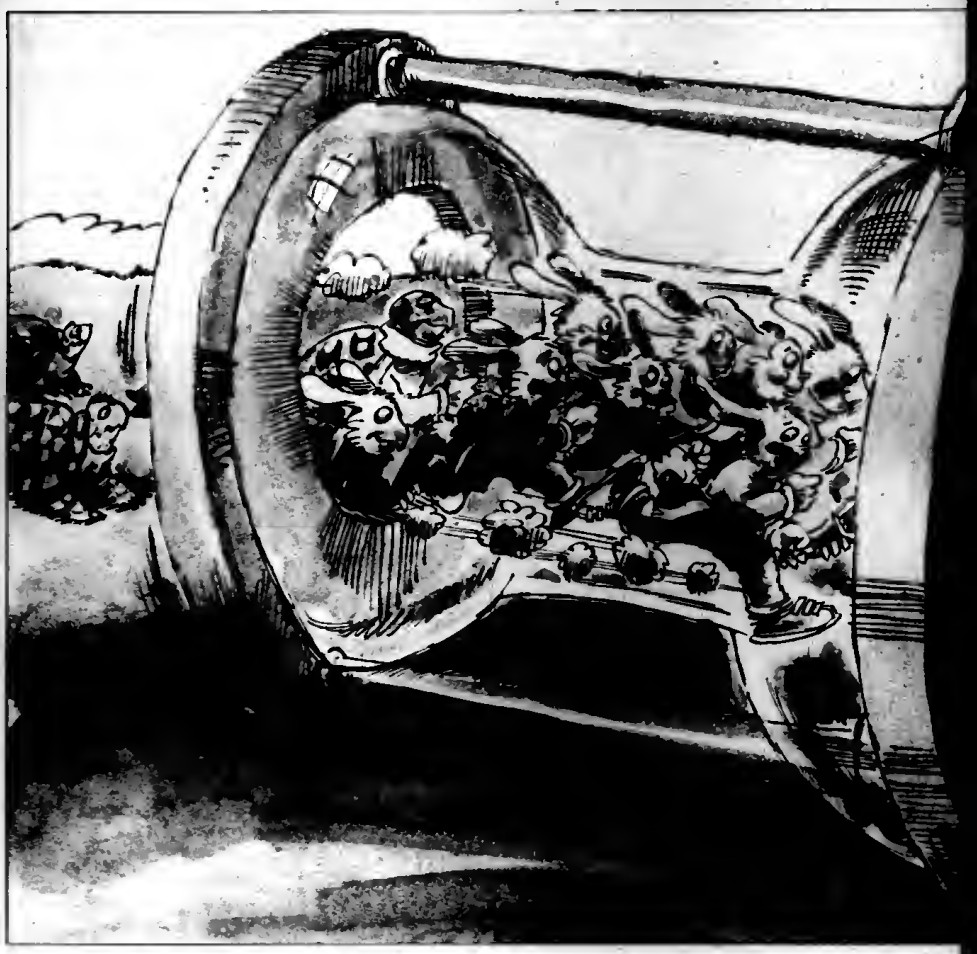
For all their complexity, encryption devices are merely installed in a user's network as a "black box" between sending and receiving ends of each communications link. They can be operated in what might be described as a push-button mode. Most units securely mount on either desktops or racks; and their removal or the opening in their front panels requires the use of dual controls. Their data encrypting key is typically erased automatically if unauthorized access is attempted. In addition to this, in the event of power failures or interruptions, the encrypting key is protected by battery backup and therefore retains its key values.

The need for many business organizations to protect their data by encryption methods is perhaps not as immediately acute as it is for banks or credit reporting organizations, which might obviously violate confidentiality. However, much of the data transferred by businesses are every bit as sensitive. For whatever reason and to what extent such data might be intercepted, and what that might cost the victims, are determinations that can only be made by the individual organizations concerned. Compounding these determinations, of course, is the tremendous growth of computers and data communications in virtually every area of business, as well as in the home.

The alternative to data encryption — even assuming that site controls, personnel controls, password controls, file access controls and similar measures have been evaluated and implemented — is simply accepting a high risk or loss. However, the likelihood of auditors and insurance companies accepting such high risks is minimal. In fact, in the not-too-distant future, auditors and insurance companies may demand senior management to take measures to decrease the probability of such losses. As higher levels of corporate management become more and more involved in protecting information assets, the data processing managers and data communications managers will not remain the decision makers for or against encryption.

The reason is not unlike the reason that banks require its use. As mentioned earlier, a company's board of directors may well be held responsible for the loss of assets, which include proprietary and confidential data. Such losses may be prevented if the data were secured during transmission. For the future, it should become evident that calculating the value of information assets, identifying how vulnerable they are to theft, and then protecting them will cost significantly less than rectifying such losses after the fact.o

Schlafly is marketing manager for digital products at Racal-Milgo in Miami, Fla.



MIXING IT UP WITH MUXES

By James J. Michaels

If transmission over phone lines was free, multiplexing techniques that share a facility or a line among many data or voice conversations would not be very popular. But rising line charges — and the value-added features of multiplexers — have made the multiplexer a cornerstone of communications networks.

Multiplexing techniques have

evolved from the earliest frequency-division multiplexers (FDM), to time-division multiplexers (TDM), to today's STDM, or statistical time-division multiplexers. A new generation of TDMs are, in turn, evolving into a new class of communications network processors.

A time-division multiplexer carries dedicated virtual circuits. The time on the communications line is divided into cycles of equal length and each device attached to the TDM "owns" a fixed interval of time in esch cycle. Each device is assigned a constant bandwidth, whether it is transmitting or not. Therefore, the sum of the speeds of all input devices cannot exceed the speed of the composite link.

A statistical multiplexer dynamically allocates bandwidth to a device only when it has data to send. Statistically speaking, devices such as terminals are idle most of the time. So the sum of the inputs to a statistical multiplexer can be many times the speed of the line — four to eight times is typical.

Basically, all these devices — FDM, TDM, STDM — can be networking devices. The key question is how to create an easily man-

ILLUSTRATION BY JIM VENABLE

aged, practical and cost-efficient network using these components.

An ideal network would offer the user a number of advantages. It would provide universal compatibility, handle different types of transmission facilities, provide centralized management and diagnostics and be upwardly compatible. As the network grew, the system operator would be able to add more and varied network devices.

In such an ideal network, the network manager would have very efficient resource utilization. All users would have the ability to access any system resource on the network, such as distributed computers.

Ideal networks would be nice, but they do not exist. Most networking today is driven by computers. The problem with using computers for networking is that they use line bandwidth inefficiently. The computer is designed for crunching numbers and for manipulating data. Most computers get bogged down when they have to perform networking chores. And when they get bogged down, the system does not utilize the bandwidth in a cost-effective manner.

Most large computers drive a network with a fixed protocol, usually one designed for a particular type of data. If the user starts moving different types of data, efficiency can drop. Also, since computer systems are generally single-vendor devices, a mixed environment in which a number of different computers are joined in a network does not always work effectively or may not work at all.

This compatibility problem with computer-based networking demands devices (such as multiplexers) which remove data communications management from the computer.

The key word in designing any network, then, is flexibility. The network must be able to handle any kind of device the user may want to attach. The network should convert protocols, switch connections, change speeds and other tasks necessary to ensure compatibility and flexibility. The network must also anticipate increases in the speeds of transmission, growth in the numbers and kinds of devices that will be attached to it.

There are three basic principles that must be recognized in putting together a network:

- The network will not get smaller. Networks tend to grow. As more users come on-line and each workstation ends up having a terminal attached to it the network will keep growing.
- Networks will never become slower. Speed is addictive in data communications. Once users have had access to a 9,600 bit/sec terminal, they will never willingly go back to 1,200 bit/sec.
- The network will never stay the same. What is new today becomes old hat tomorrow. The system manager needs to purchase products that are upwardly and downwardly compatible so the system can grow.

Some data communications suppliers are responding with a systems approach that offers one-stop sourcing for an entire network. A single source ensures that components are compatible and will continue to be compatible with equipment introduced in the future.

Once a network has been built and hardware devices distributed throughout the system, centralized data network management and maintenance becomes vital. The network operator needs to monitor what is going on with the network at all times — how it is being utilized and what kind of problems users are experiencing.

From one point in the network, the operator requires total network management and diagnostic capabilities. When problems arise these diagnostics permit the operator to delve deeper into the network to determine the exact misfunctions.

Large mainframe computers can be used to manage a communications network directly, but using a very expensive CPU for error checking, protocol handling and diagnostics is an inefficient use of resources. Moreover, the CPU vendor then guides the future direction of the network's development. The trend is to offload communications management functions onto the network.

Front-end processors, specialized computers optimized for and dedicated to communications functions, relieve the mainframe of network management. But front-end processors are themselves expensive and sometimes dedicated to a few protocols or one vendor's products.

Traditional modem makers have incorporated diagnostics and control features into their products. But since modems are the most numerous devices in most networks, the cost of this added functionality can add enormous overhead to the network.

Multiplexer makers have been adding diagnostics and control features into their products as well. The advantage of multiplexers is that fewer are required and they are connected to a larger percentage of the network. Where a modem sees only one input and output line, a multiplexer can see six composite links and more than one hundred user ports.

New features being added to multiplexers — multiple data links, switching, among others — are driven by the need to manage the network. As it takes on more functionality, the multiplexer is evolving into a type of front-end processor.

Network Applications

As the capabilities of multiplexers have increased, they support exceedingly complex network topologies. No longer is each point-to-point line a separate entity, requiring separate attention. Networking multiplexers are tying everything together.

One of the basic methods multiplexers use to tie a network together is to have multiple composite data links. With multiple data links, a single phone line can route to more than one location. Al-

though not all multiplexers have the multiple-link feature, this is the direction products are moving and it is an important new development for networking.

Imagine a network joining Chicago, Atlanta and New York. With single-link multiplexers, there would usually be three phone lines, one between each city pair, and two multiplexers in each city. If the Chicago-Atlanta line was removed it would be necessary for their circuits to be connected between the ports of the two multiplexers in New York in order for those two cities to talk. Note that each Chicago-Atlanta channel requires four multiplexer ports and, in the event of rerouting, a manual patch change.

If one multiplexer supports two data links, then only one multiplexer is needed in each city. It doesn't make sense to have the Atlanta-Chicago circuits come out at one multiplexer port in New York and go back into another port on the same multiplexer.

A bypass feature in the multiplexer, which has been available for a number of years, eliminates the need for back-to-back multiplexers or in-and-out patching at intermediate points. Data is passed from one composite link to another directly. This means that there could be 24 channels between Atlanta and Chicago passing through a four-channel multiplexer in New York.

If three lines were maintained on the triangular network, multiple data link multiplexers can offer alternate routes in case of line or equipment failure. In a trinode setup, for example, stored tables permit the multiplexers to revert to a bypass situation when a link goes down. This means more overall reliability.

If the network requires a considerable amount of bandwidth between two nodes, the multiple lines on a statistical multiplexer can be used in parallel to increase the throughput. Each link carries its rated capacity independently. If there are two 9,600 bit/sec lines between a pair of statistical multiplexers, the connected terminals seem to be sharing a single 19,200 bit/sec line.

Dynamic load sharing, or traffic balancing, on dual data links means that the network operator gets to utilize all the bandwidth.

Information from a specific terminal can go through either data link, automatically going to the link with the lowest load factor. When one data link goes down, it is seen as full since nothing is going into it. All data then goes through the working link.

These automatic fallback and redundancy features are most effective if the two data links are diversely routed, by either coaxial cables or land lines.

Switching

If the network operator wants a terminal to access separate systems resources the most cost-effective solution is switching multiplexers, currently one of the fastest growing segments of the multiplexer market.

With full switching capabilities, essentially all the features of a data private branch exchange (PBX) or the dial-up telephone network are available. The user can access any node or any port in the network. Any terminal can connect to any resource. This gives multifunction capabilities to the terminals.

For example, one terminal can function as a word processor, a spreadsheet analyzer or an engineering design station — simply by connecting to the appropriate computer on the network. A single computer, going out through a switching multiplexer, can select the best printer for a specific job: dot matrix, flatbed plotter, laser and so forth.

To manage all these users and their access to multiple resources, newer switching multiplexers make it possible to define, for any terminal, precise access rights to each of the various resources spread around the network.

Closed user group options, a feature of switching multiplexers, allow the network manager to exercise more complete control over the usage of system resources by excluding any terminal not specifically admitted.

High Speed and T-1

Today's networking applications, which use traditional voice-grade data links, face speed restrictions. The coming generation of multiplexers will provide significantly higher speed capabilities and the network management tools to utilize this increased bandwidth for a variety of office automation applications.

T-1 rate links (1.544M bit/sec) provide an answer to the total speed problem. T-1 rate costs are plummeting, thus creating cheaper bandwidth.

New multiplexers make this ultrawide bandwidth practical by splitting it into more familiar "chunks," such as 9,600 bit/sec. The beauty of the latest T-1 multiplexers is convenience and their flexibility to tailor the "chunks" precisely to fit a user's need. To accomplish this, the data communications industry has taken a new look at TDM techniques.

Recall that TDM was defined previously in terms of dedicated virtual circuits and constant bandwidth. The implication was that TDMs were static, a statement which was true in the past.

Old technology TDMs were very hard to program; they had lots of straps, often physical straps as well as switches. The combinations of port speeds that could be programmed were usually limited, particularly when dealing with the random assortment of speeds and terminal parameters encountered in the average mixed system.

The older TDMs were also limited in diagnostics and offered limited or nonexistent statistics. Almost all were incapable of attaching to a unified network management system.

The new generation of TDMs are a great leap forward, particularly because of automatic reframing. This feature uses microprocessor

control to interpret relatively simple instructions from the operator and programs the "straps" in memory. The time intervals assigned to each pon are shifted easily. Not only are these TDMs easier to program, but being designed for data (rather than being derived from voice channel banks), they are flexible enough to combine any type of digital information — data, compressed video, facsimile, digitized voice and so on — over one circuit.

Most large companies today operate multiple networks, running voice, data, facsimile equipment and video in parallel. Unifying these functions into one network not only cuts costs, but puts the entire communications network under a single management system. The T-1 facilities-management systems in the new generation of TDMs provide a single system networking solution for all of a user's communications needs.

The argument is made that most users do not have megabit bandwidth requirements. True, not all computers can use the full 1.5M bit/sec capacity. But by combining voice, video and data, there is often more than enough bandwidth to justify T-1.

But aren't they fundamentally different kinds of information? Not at all. While compressing video signals from several megahertz analog to digital bit streams of less than 500K bit/sec is still the province of specialized coder/decoders (codecs), these television devices are available and produce a standard digital output. T-1 multiplexers themselves are adding integral voice digitization through special I/O cards. Using the latest techniques for voice coding, it is possible to convert a normal conversation to 32K bit/sec (half the Bell standard) and below.

What does it mean to a user to have a hotshot T-1 multiplexer with super-sophisticated automatic reframing? Let's look at one short scenario.

You have the T-1 bandwidth and have adapted your present facsimile machines to much higher speeds. a full page now takes two seconds. You have a standard video compression codec that requires less than 500K bit/sec. Both machines are installed in the boardroom, where the president is now holding a videoconference.

The chief engineer in another state comes to a point where he wants to hand the president a drawing. Instead, he puts it in the facsimile transmitter. With advanced bandwidth allocation, a T-1 multiplexer might have to interrupt the video signal for two seconds while the drawing is sent. The video picture would be frozen temporarily, but might not even be noticed by the people participating in the videoconference.

The new TDMs with T-1 rates will provide dynamic bandwidth contention that makes such feats possible. This is not allocation, nor statistical multiplexing, but contention among users attached to the network. Until a device bids for the bandwidth, no bandwidth is allocated to it. This gives the network operator a great deal of flexibility because the aggregate speed of attached devices can be more than the bandwidth of the data link.

If T-1 TDMs can do all that then some would suggest statistically multiplexing at T-1 rates. Unfortunately, for two main reasons, this technique does not work.

The first reason is due to delays. Statistical multiplexers buffer input data to prepare it for sharing the composite link. This takes time, and introduces a variable delay that means nothing to an interactive CRT terminal, but will be unacceptable in a voice conversation.

The second reason is transparency. A TDM is not sensitive to protocols — a statistical multiplexer is. Any form of data can be handled with a TDM.

In addition, the inputs to T-1 are usually high-duty cycle: voice, computer-to-computer links, remote job entry and so forth. Statistical multiplexing simply eliminates idle time — if there is no idle time, then the statistical multiplexer offers no advantage.

Another multiplexer feature becoming more important as networks grow is enhanced diagnostics. Of great importance is systemwide alarm reporting of any fault in the network to a single point. For the sake of the operator, single-point diagnostics are essential and are becoming more widely available.

In the near future the intelligence being brought into the new TDMs will make it possible to transfer this single control point to different locations. In this way control can follow the day shift from time zone to time zone, ot be passed to anyone available after a disaster.

Part of this control is due to electronic patch features that provide total port and destination independence for the network. The next logical enhancement in TDMs will be an ability to work with future generation PBXs to deliver more integrated services.

Data multiplexers and the new generation of T-1 rate TDMs, with more advanced features and intelligence, are approaching the former functions of front-end processors. They provide powerful tools for solving networking requirements, and will become even more powerful in the near future.

Multiple T-1 links, with bypass and alternate routing, reduced bandwidth, digital voice and dynamic bandwidth contention are announced features that are being introduced by vendors today. Juggling of bandwidth and tricks with automatic reframing will take more time.□

Michaels is a member of the staff of the product planning department of Timeplex, Inc., located in Woodcliff Lake, N.J.

Keeping Networks Under Control

By Rudolf Strobl

The continuing evolution of multivendor environments, the explosive proliferation of personal computers and end-user computing and the divestiture of AT&T (giving users many more communications options) are catalyzing the growth and increased complexity of data communications networks. These developments have created a need for alternatives to routine functions such as monitoring, fault isolation and equipment restoration as well as automatic network reconfiguration.

At the same time, devices are being connected to networks at a pace that far exceeds the ability of the organization to maintain such devices.

Products that enhance network management will comprise 15% to 30% of total systems cost in the not-too-distant future.

The following article is based upon research done by the Yankee Group and published in a report titled Network Management and Diagnostics.

End users do not have the time or the inclination to worry about what is going on behind the communications port. To them the keyboard represents the net

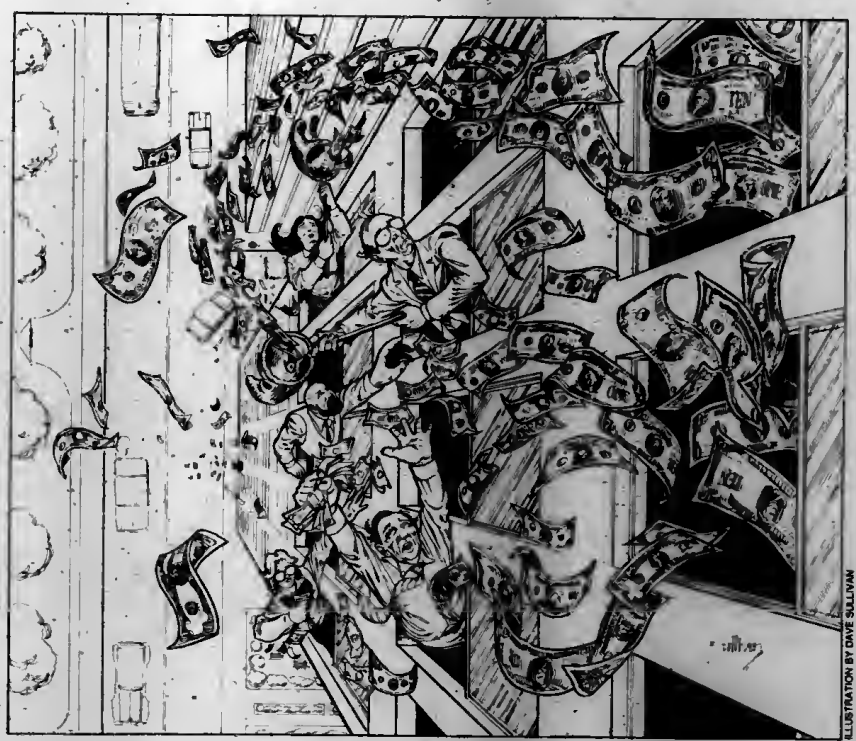


ILLUSTRATION BY DAVE SULLIVAN

work. Their primary concern is the ease of accessing information. The network and its functions must therefore appear completely transparent to users. Networking is becoming the key to information management among the diverse groups of users seeking access to corporate information resources. Thus, network management functions should support both hardware (computers, modems and front-end processors) and software (for applications and network control programs as well as access-method software in host CPUs). In other words, network management facilities should reside in all network components.

Although it is not a technical discipline, network management is a complex and far-encompassing discipline which covers every physical and logical object or component of the network, starting at the keyboard and extending to the applications programs. It encompasses both the communications element of the network and the data processing system (meaning terminals and central processors). It involves facilities that are needed in support of more complex functions such as network information and software management. These functions are necessary due to the fragmentation and dispersion of the "terminal/program/data" elements from single to multiple computer environments.

Some network information management software is available, but it is not available for all the components that have to be integrated in the network. IBM has incorporated all these concepts in its Systems Network Architecture (SNA) as well as some of the software that will control these processes. However, the functionality in terms of supporting certain types of applications such as file transfer are not yet fully developed. For example, SNA lacks an interactive file transfer capability.

Instead of the applications hardware and software controlling the network, the specific network software will control access to the applications and the types of applications. This is based on the presumption that at the moment a device is connected to the network it actually becomes a part of the network. Users should therefore evaluate all network components in terms of their ability to complement control and management functions.

The potential for the network information management market is very large and there are a great deal of opportunities to be exploited by independent data communications equipment systems vendors as well as by IBM. Yet the market has not been fully realized by vendors other than modem manufacturers and a few companies who have been and are currently dominating the opportunities for stand-alone line-diagnostic facilities.

Undoubtedly, the only realistic solution is centralized control supported by decentralized functions resident in every physical and logical network component, enabling a central problem-determination data base to be maintained and used for performance evaluation, capacity planning and other related activities. Characteristic of this approach is network management and control via a network architecture, with SNA coming closest to the optimal solution. The Yankee Group survey found that by the end of 1983, 60% of IBM's large-system users worldwide will have implemented some form of SNA.

Network management, from an architectural perspective, has an objective that goes beyond establishing and managing a communications link between two processors. True communication takes place only when the application process at either end of a connection are making meaningful exchanges of information.

Network and computer systems vendors, therefore, have had to implement their own architectural strategies to satisfy their users' current networking requirements — hence the creations of SNA, Digital Equipment Corp.'s Decnet, Data General Corp.'s Zodiac and Honeywell, Inc.'s Distributed System Architecture.

With the exception of IBM, most of these vendors have attempted to parallel what they perceive will be the direction of the open systems interconnect (OSI) model, but since only three of the seven layers of the OSI model have been fully specified, vendors are essentially flying in the dark, trying to match what they think will be the eventual standards.

Independent data communications equipment vendors of computer terminal and communications equipment need to follow different approaches to provide both solutions that can integrate the components into the SNA strategy, and imaginative products that can improve their capabilities over competitors.

Even if IBM's integrated approach is chosen by user organization — meaning Communications Network Management (CNM) with all its strategic structure of program products such as Network Communications Control Facility (NCCF), Network Problem Determination Application (NPDA), Network Program Analyzer (NPA) and so on — opportunities remain open for other vendors to promote their own network management solutions and products, which can be as or more sophisticated than currently available IBM offerings. In fact, the unique architecture and flavor of each distributed computer operating environment requires tailored, product-oriented network management support for remote maintenance; performance analysis and console management. Consequently, a good market exists for non-IBM vendors with good network management products.

To demonstrate the current value of the total communications network management market, an examination of IBM's line of network management facilities currently available for the various network components should be made. These include:

PERCENTAGE THAT CNM FUNCTIONS ABSORB IN NETWORK COMPONENTS

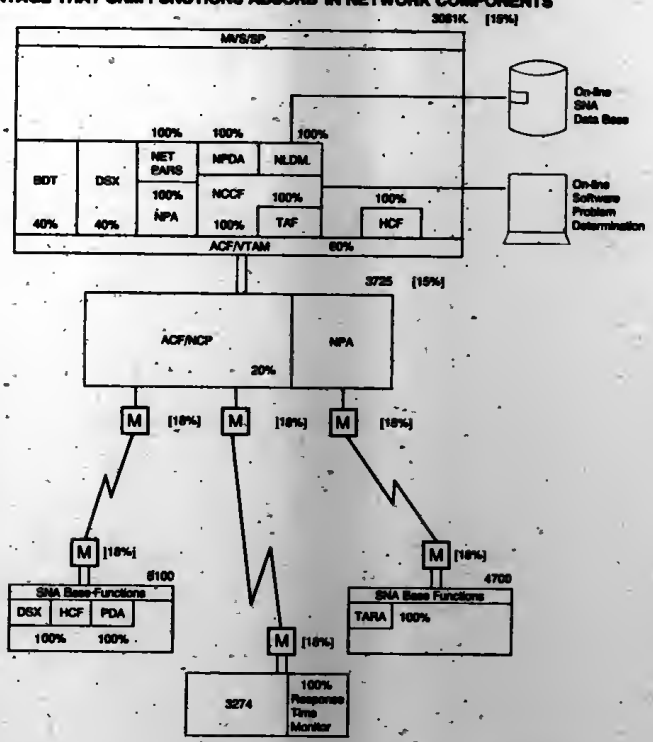


Figure 1

Chart Courtesy of The Yankee Group

- Host-based Communications Network Management products.
- Distributed systems based CNM products.
- Diagnostic facilities in modem equipment.
- Network management functions in the 3705 and 3725 communications controllers and other components.

Since dollar figures for the cost of network management are not officially available from vendors, it is not intended to claim total accuracy but to provide a sense of perspective for the sometimes hidden and often ignored cost of these increasingly critical network functions. Moreover, it includes only the cost of products, not technical support or even the dedicated personnel that are currently required in support of these activities. Users should factor in their own costs to arrive at the total cost of network management. In addition, many one-time charge programs, available to simplify network management functions, are not included in the following figures.

Figure 1, shown above, illustrates the percentages that CNM facilities absorb in network components — computers, program products and modems. For example, 20% of IBM's Virtual Telecommunications Access Method is allocated to network management because of all the support needed for NCCF. The percentage of diagnostic intelligence in modem equipment (18%) has been calculated from prices of equipment with and without diagnostic capabilities. There is a considerable amount of hardware logic in the 3725 controller to perform self-diagnostics and failure isolation, for

Computerworld presents the three most important factors in creating the #1 specialized business publication in the United States:

Factor 1

Great Editorial. When you ask $44 a year for a subscription — the editorial better be worth it. Ours is. Because we hire journalism skills first and computer industry background second. Our writers instinctively recognize the lead in a story. They can smell another story when they haven't even completed the one they're working on. They know how to interview; how to get the source to reveal facts that never were intended to be released.

Factor 2

Great Editorial. Our writers are pros at giving our readers what they need because they go where our readers are. They go to the same seminars, conferences, manufacturers' training programs and trade shows. And they don't just listen with our readers — they listen to them. So our readers get responsive editorial. And they regularly vote *Computerworld* "most useful publication" — both in our own studies and in those done by independent organizations.

Factor 3

Great Editorial. Because *Computerworld's* editorial department is supported by subscription revenue, our writers know who they're working for. They write the stories our readers need to see — independent from our advertising. And our advertisers appreciate our reputation for editorial integrity as much as our readers do.

Editorial. It's the most important factor in developing *Computerworld* as the #1 specialized business publication in the U.S. And you'll find that our sales people know as much about our readers and our marketplace as our writers do. They'll be happy to give you the facts, the numbers and a first-class overview of the marketplace. Just call Don Fagan, Vice President, Sales at 1-617-879-0700.

COMPUTERWORLD

THE NEWSWEEKLY FOR THE COMPUTER COMMUNITY

COMMUNICATIONS NETWORK MANAGEMENT CONFIGURATION — HARDWARE AND SOFTWARE FOR A HYPOTHETICAL BANKING ORGANIZATION

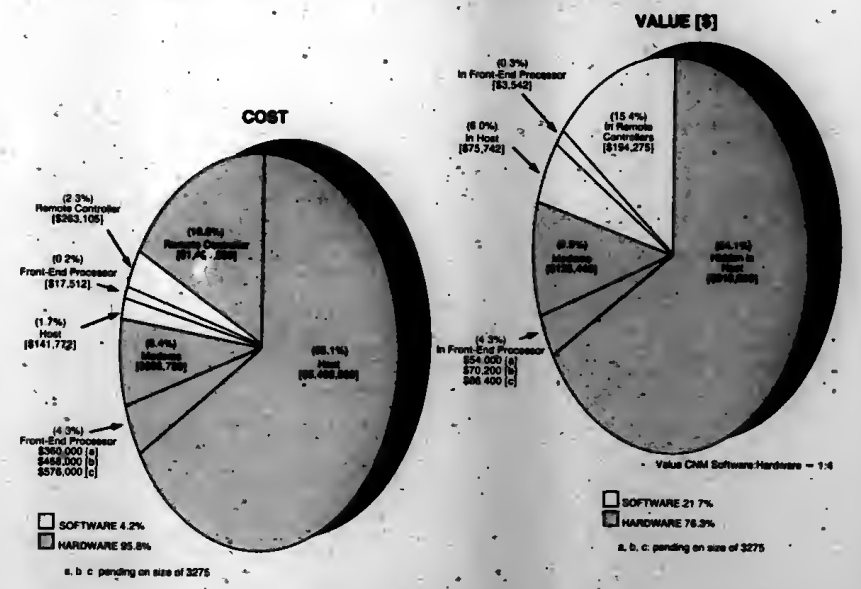


Figure 2

Chart Courtesy of The Yankee Group

both internally and externally attached devices; in addition, the 3725 has a dedicated console for network management functions. Host Command Facility (HCF), which is used in conjunction with Terminal Access Facility (TAF) and allows network operators to control multiple 8100 Distributed Processing Program Executive (DPPX) systems concurrently, as well as Distributed Systems Executive (DSX), which assists users in the managing distributed systems, are both hidden in the operating system of the 8100.

Moreover, in order to have a better grasp of the actual cost of network management facilities, let's create a hypothetical banking organization running one IBM 3081K host computer, two colocated 3725 Communications Controllers (to back up each other), with 70 physical nodes attached consisting of 10 8100 remote controllers, 25 4700 banking controllers, 35 3274 controllers connected through dedicated lines (with 3865 modems transmitting at 9,600 bits/sec).

The 8100 supports some desktop and personal computers, peripherals and so on; the 4700 supports up to 10 terminals and a number of printers; and the 3274 controllers support some display terminals.

Figure 2, shown above, depicts the both the value and the cost of CNM configuration hardware and software for the hypothetical banking organization, and shows that the proportion between the value of CNM software and hardware is 1:4.

The cost pie chart shows the actual cost of CNM configuration hardware and software for the hypothetical banking organization.

Comparison of dollars in the value of CNM configuration hardware and software with dollars in the actual cost of hardware and software configuration yields a percentage of 15.2% — meaning the value of network management hardware and software relative to the actual cost incurred by our banking organization. In other words, CNM facilities represent 15.2% of the actual cost of hardware and network management

program products.

What is the significance of these dollar values and percentages to both users and vendors?

The importance of network management facilities has dramatically increased throughout the last five years. As modem and other line component vendors capitalized on this market with expensive and sophisticated network control centers which only integrate a small percentage of the actual network components, IBM has concentrated and promoted the rather slow but powerful concept of a totally integrated Communications Network Management approach.

During this period of proving their concept, IBM prices remained fairly competitive. The dramatic advantage of a concept that is finally beginning to work will switch the tide toward IBM's integrated approach, but it will also cost users considerably more, even after economies from declining hardware costs have been factored into the total system cost.

While hardware costs will continue to decline relative to software costs, the cost of network managemeot functions will dramatically increase throughout the next three years. In order to contioue its annual growth of 15% to 20%, IBM will have to increase the volume of distributed-type hardware sales as well as increase the cost of existing and forthcoming network management systems software.

Projections reveal that total network management systems costs will increase from 15% to 30% or greater as part of total systems costs. This does not include costs of facilities or applications software — such as IMS, Cics, Time Sharing Option and so forth — which would add an additional 10% to 20% to total system cost. This will bring users increased benefits in terms of network reliability, availability and maintainability and will certainly have an impact in the users' planning of their budgets for network management facilities and services.

For vendors that compete with IBM on a hardware basis, these price developments will provide clues as to how fast IBM can afford to lower its hardware prices. IBM's competitive advantage is partially to offset decreases in hardware prices through both price increases of existing network management software program packages and releases of new network control products. IBM's competitors have no comparative advantage unless they can:

- Provide better products in support of their network components within IBM CNM environments.
- Compete against CNM applications with user-friendly, easy-to-use CNM products, which can make use of existing CNM data generated by IBM products.
- Improve and expand the existing market of line-monitoring equipment.

In recent months, many of the traditional mainframe manufacturers granted SNA a wary approval. Although they continue to shun the notion of direct IBM-compatibility, each of the major mainframe companies, in addition to DEC, Wang Laboratories, Inc. and Hewlett-Packard Co., have formally announced both their intention to support SNA and products that demonstrate each vendor's aggressive program to offer high-level software and communication interconnectability with SNA.

For example, NCR Corp. and Sperry Corp. are developing strategies based on terminal- and cluster-controller-level software interconnection conforming to IBM's Physical Unit 2 (PU2) specification of SNA for peripheral nodes and are planning to adopt higher-level SNA specifications, known as the PU4 and PU5, for their products. These allow communications controllers and host interconnection respectively. The PU4 specification, which represents network control program (NCP) support, has been offered for some time in the NCR Comten product line of IBM-compatible front-end processors.

Similarly, most minicomputer vendors are planning to supply gateways for SNA by the mid-1980s (DEC already does), but the efficiency and ease-of-use of these communications products will depend heavily on cooperation from IBM in supplying interface information at the earliest possible date after the release of new product specifications, systems software and network control software.

Both IBM and other entrepreneurial vendors will also make different alternatives available that will extend the level of connectivity between computer-driven nodes in SNA networks. For this purpose, the major IBM competitors are developing SNA connectors. The primary function of these products is to provide logical connectability to host-based strategic IBM products, in addition to computer-to-computer functionality currently missing from IBM.

Network management is one of the businesses that have a secure, enormous market. The sheer size of communications networks and their indispensability in every business and government enterprise ensures that network management products will enjoy a dramatic and healthy growth throughout the decade.‡

Strobl is a senior analyst at the Yankee Group, a Boston-based strategic market planning service. He directs the company's Data Communications Planning Service.

FEBRUARY 1984

VENDOR PROFILES

A. B. DICK CO.
Office Products
5700 W Touhy Ave
Chicago, IL 60648
(312) 647-8800
Major Market: Component, Computer, Terminal, Peripheral and Office Equipment Manufacturing, OEM (Computer Systems); Software House
Target Industries: Education, Government; Legal
Target Applications: OA
Contacts:
Head of Marketing: Clayton Sokley
Geographic Coverage: International
Year Established: 1884

ABLE COMPUTER
1732 Reynolds Ave
Irvine, CA 92714
(714) 979-7030
Major Market: Peripheral and Communications Equipment Manufacturing
Contacts:
Head of Marketing: Bob Jones
Head of Sales: LaVone Wichman
Geographic Coverage: International
Year Established: 1975
Number of Employees: 160

ABT ASSOCIATES
ABT Microcomputer Software
55 Wheeler St
Cambridge, MA 02138
(617) 492-7100
Major Market: Software House
Target Industries: Apple II
Target Applications: Communications
Contacts:
Head of Marketing: W Harrington
Geographic Coverage: National
Year Established: 1982

ACC (ADVANCED COMPUTER COMMUNICATIONS)

720 Santa Barbara St
Santa Barbara, CA 93101
(805) 963-9431
Major Market: Communications Equipment Manufacturing; OEM (Peripherals-Terminals), Software House; Systems House (Commercial OEM)
Target Industries: Communications
Contacts:
Head of Marketing: Don Lavallee
Head of Engineering: Ed Fash
Year Established: 1976
Number of Employees: 150

ACCESS TELECOMMUNICATIONS CORP.
60 Shore Dr.
Burr Ridge, IL 60521
(312) 920-7920
Major Market: Communications Equipment Manufacturing; Software House
Target Industries: Communications, Telecommunications
Contacts:
Head of Marketing/Sales: Mike Doyle
Geographic Coverage: International
Year Established: 1982
Number of Employees: 15

ACTION/HONEYWELL
4401 Beltwood Pkwy S
Dallas, TX 75234
(214) 386-3500
Major Market: Communications Equipment Manufacturing
Target Industries: Telecommunications
Target Applications: Voice Networking, Data Network, Message Switching
Contacts:
Head of Marketing/Sales: N Michael Potts
Head of Software/Engineering: Fred Gentice
Geographic Coverage: National
Year Established: 1970
Number of Employees: 300

ADVANCED COMPUTER TECHNIQUES
16 E 32 St.
New York, NY 10016
(212) 696-3600
Major Market: OEM (Computer Systems), Software House, Systems House (Commercial OEM)
Target Industries: Banking, Medical, Manufacturing
Target Applications: Custom Application
Contacts:
Head of Marketing/Sales: Lesley Hersh
Geographic Coverage: International
Year Established: 1962
Number of Employees: 350

ADVANCED INFORMATION MANAGEMENT
20 Kilby St.
Boston, MA 02109
(617) 367-1612
Major Market: Software House
Target Industries: Data Processing: Finance
Target Applications: Data Processing, Financial
Contacts:
Head of Marketing/Sales: Michael Ailes
Head of Software: Edward Tighe
Geographic Coverage: National
Year Established: 1976
Number of Employees: 75

ADVANCED MICRO TECHNIQUES
Suite 209
1291 E. Hillsdale Blvd
Foster City, CA 94404
(415) 349-9336
Major Market: Software House
Net Sales: $100,000 - $500,000 (1981)
Contacts:
Head of Marketing: Jack D. Coplen
Head of Software: Ed L. Bank
Geographic Coverage: International
Year Established: 1977

ADVANCED SOFTWARE PRODUCTS, INC.
100 E. Linton Blvd.
Tower B
Delray Beach, FL 33444
(305) 276-5080
Major Market: Software House, Systems House (Commercial OEM)
Net Sales: $1 Million - $5 Million (1981)
Contacts:
Head of Marketing: A. Oliveri
Geographic Coverage: International
Year Established: 1976
Number of Employees: 12

ADVANCED SYSTEMS CONCEPTS, INC.
22 Hudson Place
Hoboken, NJ 07030
(201) 798-6400
Major Market: Software House
Target Industries: Banking, Commercial, Engineering, Education
Target Applications: DEC-IBM Communications
Contacts:
Head of Marketing: Joseph Affrunti
Head of Sales: Benjamin Rosenberg
Head of Software/Engineering: David Schwartz
Geographic Coverage: International
Year Established: 1981
Number of Employees: 10

AETNA TELECOMM LABS
131 Flanders Road
Westboro, MA 01581
Major Market: Component and Communications Equipment Manufacturing
Target Industries: Telecommunications
Target Applications: Nonspecific
Contacts:
Head of Marketing/Sales: Marjorie Katz
Head of Engineering: Leon Woo
Geographic Coverage: International
Year Established: 1981
Number of Employees: 50

AGILE CORP.
Building E
2290 Ringwood Ave
Concord, CA 94520
(800) 538-1634
Major Market: Component, Terminal, Peripheral and Communications Equipment Manufacturing
Target Industries: IBM Mainframe Owners, Fortune 1450
Target Applications: 3270 Environment
Net Sales: $1 Million - $5 Million (1981)
Geographic Coverage: International
Year Established: 1977
Number of Employees: 31

AIR LAND SYSTEMS CORP.
2710 Prosperity Ave.
Fairfax, VA 22031
(703) 573-1100
Major Market: Component Manufacturing, Software House
Contacts:
Head of Sales/Marketing: Bill Axe
Geographic Coverage: International
Year Established: 1970
Number of Employees: 30

ALDEN ELECTRONICS, INC.
Washington St.
Westboro, MA 01581
(617) 366-8851
Major Market: Peripheral and Office Equipment Manufacturing
Target Industries: Meteorology, Banking
Contacts:
Head of Marketing/Sales: Lawrence A. Farrington
Head of Engineering: Charles Willingham
Geographic Coverage: National
Year Established: 1946
Number of Employees: 120

ALPHA SYSTEMS LTD.
316 N. Michigan Ave
Chicago, IL 60601
(312) 346-0707
Major Market: Software House, Systems House (Commercial OEM), Dealer/Distributor
Target Industries: Legal; Accounting Business Services
Target Applications: Accounting, Legal Billing, Communications; Word Processing
Net Sales: $500,000 - $1 Million (1981)
Geographic Coverage: Regional
Year Established: 1979
Number of Employees: 6

ALPHAMATRIX, INC.
1021 Millcreek Dr
Feasterville, PA 19047
(215) 355-3297
Major Market: Communications Equipment Manufacturing, Software House
Target Industries: Communications, Pharmaceutical; Banking, Insurance
Target Applications: Process Control
Net Sales: $500,000 - $1 Million (1981)
Contacts:
Head of Software: Vince Judith
Geographic Coverage: National
Year Established: 1973
Number of Employees: 14

ALSPA COMPUTER, INC.
477 Division St.
Campbell, CA 95008
(408) 370-3000
Major Market: Computer Manufacturing
Target Industries: System Integrators, OEMS
Target Applications: Medical, Dental Billing, POS
Contacts:
Head of Marketing/Sales: Richard Brooks
Head of Engineering: Bill Streeper
Head of Customer Service: Dennis Henning
Geographic Coverage: International
Year Established: 1980

ALTERGO PRODUCTS, INC.
Suite 6900
400 W. Cummings Park
Woburn, MA 01801
(617) 938-8611
Major Market: Software House

Vendors

Target Industries: IBM users
Geographic Coverage: National
Year Established: 1981
Number of Employees: 12

THE ALTERNATE SOURCE
704 North Penn Ave
Lansing, MI 48906
(517) 482-8270
Major Market: Software House
Geographic Coverage: National
Year Established: 1980
Number of Employees: 4

AMDAHL CORP.
1250 E. Arques Ave
P.O. Box 470
Sunnyvale, CA 94086
(408) 746-6000
Major Market: Component, Computer, Peripheral and Communications Equipment Manufacturing, OEM (Computer Systems); Software House; Dealer/Distributor
Target Applications: Project Productivity
Contacts:
Head of Software: Fredrick M. Trapnell, Jr.
Head of Engineering: Bruce O'Beebe
Geographic Coverage: International
Year Established: 1970
Number of Employees: 5,500

AMDAHL CORP.
Amdahl Communications Systems Division
2500 Walnut Ave
Marina Del Rey, CA 90291
(213) 822-3202
Major Market: Computer and Communications Equipment Manufacturing
Target Industries: Government; Education, Finance, Fortune 500
Contacts:
Head of Sales: Owen Frances
Geographic Coverage: International
Year Established: 1969
Number of Employees: 700

AMERICAN COMPUTER & ELECTRONICS CORP.
Suite 242
2 Professional Dr
Gaithersburg, MD 20879
(301) 258-9850
Major Market: Peripheral Manufacturing; OEM (Computer Systems); OEM (Peripherals-Terminals); Software House, Systems House (Commercial OEM); Data Services (Service Bureau)
Target Industries: Military; Telecommunications
Target Applications: Special Military Equipment; Office Automation, Telephone Automation
Net Sales: $1 Million - $5 Million (1981)
Contacts:
Head of Marketing: Ron Trowbridge
Head of Sales: Dave Encke
Head of Software: Kim Richeson
Head of Engineering: Bill Keys
Head of Customer Service: George Smoot
Geographic Coverage: International
Year Established: 1965
Number of Employees: 100

AMERICAN LASER SYSTEMS, INC.
106 James Fowler Road
Goleta, CA 93117
(805) 967-0423
Major Market: Component and Communications Equipment Manufacturing
Target Applications: Data Transmission, Video Transmission
Net Sales: $500,000 - $1 Million (1982)
Contacts:
Head of Marketing/Sales: L. Shallenberger
Head of Engineering: Robert Lewis
Head of Customer Service: Robert Klemovec
Geographic Coverage: International
Year Established: 1968
Number of Employees: 22

AMERICAN PHOTONICS, INC.
71 Commerce Road
Brookfield, CT 06804
(203) 775-8950
Major Market: Communications Equipment Manufacturing
Target Industries: Data Communications, Telecommunications
Contacts:
Head of Marketing: Scott Siderman
Geographic Coverage: International
Year Established: 1981
Number of Employees: 20

AMERICAN TELECOM, INC.
3180 Miraloma Ave
Anaheim, CA 92806
(714) 630-7721
Major Market: Communications Equipment Manufacturing
Target Industries: Hotel, Motel
Contacts:
Head of Sales: John Combs
Head of Engineering: Allan Thompson
Geographic Coverage: International
Year Established: 1976
Number of Employees: 400

AMNET, INC.
P.O. Box 412
101 Morse St
Watertown, MA 02172
(617) 923-1850
Major Market: Component and Communications Equipment Manufacturing, Software House; Systems House (Commercial OEM)
Target Industries: Banking, Service Bureaus, Insurance, Government
Target Applications: Private Data Network, Payroll, Pay-By-Phone
Net Sales: $1 Million - $5 Million (1981)
Contacts:
Head of Marketing/Sales: John S. Whelan
Head of Software: Peter Cole
Head of Engineering: Richard Pepe
Geographic Coverage: International
Year Established: 1969
Number of Employees: 75

AMTELCO
6025 Monona Dr
Madison, WI 53716
(608) 221-3856
Major Market: Communications Equipment Manufacturing, OEM (Computer Systems); Systems House (Commercial OEM)
Target Industries: Answering Service
Target Applications: Operator and Answering Service
Contacts:
Head of Marketing: Bernard Torvik
Geographic Coverage: International
Year Established: 1974
Number of Employees: 130

ANASAZI
2219 E. University Dr
Phoenix, AZ 85034
(602) 275-0302
Major Market: Communications Equipment Manufacturing, Software House
Target Industries: Lodging, Banking, Cable TV
Contacts:
Head of Marketing: Elaine Ornburg
Head of Engineering: Jan Wlodarkiewicz
Head of Customer Service: Tom Burns
Geographic Coverage: International
Year Established: 1980
Number of Employees: 65

ANCHOR AUTOMATION, INC.
6913 Valjean Ave.
Van Nuys, CA 91406
(213) 997-6493
Major Market: Communications Equipment Manufacturing
Target Industries: Retail
Contacts:
Head of Marketing: Bert Weiss
Head of Sales: Bert Weiss
Head of Software: Brian Ulch
Head of Engineering: Jim Meador
Geographic Coverage: National
Year Established: 1979
Number of Employees: 40

ANDERSON JACOBSON, INC.
521 Charcot Ave
San Jose, CA 95131
(408) 263-8520
Major Market: Terminal, Peripheral and Communications Equipment Manufacturing, Software House
Target Applications: APL Programs
Contacts:
Head of Marketing: Dick DeLong
Head of Sales: Thomas Zmach
Head of Engineering: Wayne Seppeler
Geographic Coverage: International
Year Established: 1967
Number of Employees: 675

APEX TECHNOLOGY
10965 N. 5900 W.
Highland, UT 84003
(801) 350-8672
Major Market: Communications Equipment Manufacturing
Target Industries: Banking; Insurance
Contacts:
Head of Marketing/Engineering: Mike Stanford
Geographic Coverage: National
Year Established: 1982
Number of Employees: 4

APPLIED CYBERNETICS, INC.
224 Camino Del Cerro
Los Gatos, CA 95030
(415) 651-3000
Major Market: Software House
Target Industries: Manufacturing, Programming
Contacts:
Head of Marketing: Douglas Hulme
Geographic Coverage: International
Year Established: 1977
Number of Employees: 2

APPLIED DATA RESEARCH, INC.
Rte. 206
Orchard Road
Princeton, NJ 08540
(201) 874-9000
Major Market: Software House
Contacts:
Head of Marketing: Donald A. Jordon
Head of Sales: E. Linwood Pearce
Head of Software: Martin A. Goetz
Geographic Coverage: International
Year Established: 1959
Number of Employees: 825

APPLIED INFORMATION SYSTEMS, INC.
500 Eastowne Dr
Chapel Hill, NC 27514
(919) 942-7801
Major Market: Software House
Target Applications: Compilers (PL/1); Data Entry, Word Processing, Communications
Net Sales: $100,000 - $500,000 (1981)
Contacts:
Head of Marketing: Elizabeth Epermanis
Geographic Coverage: International
Year Established: 1972
Number of Employees: 7

APPLITEK CORP.
107 Audubon Road
Wakefield, MA 01880
(617) 246-4500
Major Market: Communications Equipment Manufacturing, Software House
Target Industries: Government; Scientific; Universities
Target Applications: Communications
Contacts:
Head of Software: Patricia Elliot
Head of Customer Service: Dale Hokanson
Geographic Coverage: National
Year Established: 1982
Number of Employees: 40

ARBAY SYSTEMS LTD.
5 Marina View Plaza
Hoboken, NJ 07030
(212) 269-1300
Major Market: Software House; Systems House (Commercial OEM); Data Services (Service Bureau)

Contacts:
Head of Marketing: Christopher Manderson
Head of Sales. Mark Lobane
Geographic Coverage: International
Year Established: 1975
Number of Employees: 110

ARK ELECTRONIC PRODUCTS, INC.
325 W. Hibiscus Blvd
Melbourne, FL 32901
(305) 724-5260
Major Market: Communications Equipment Manufacturing
Contacts:
Head of Marketing/Sales: Gayle Lucas
Head of Software/Engineering: P.W. Schirmer
Geographic Coverage: International
Year Established: 1972
Number of Employees: 150

ARTEL COMMUNICATIONS CORP.
P.O. Box 100
W. Side Station
Worcester, MA 01602
(617) 752-5690
Major Market: Communications Equipment Manufacturing
Target Industries: Government, Television Networks, Computer Graphics
Target Applications: CAD/CAM, Transmission of Video/Audio, Digital Data
Contacts:
Head of Marketing: Harry Jain
Head of Sales: John Bielawski
Head of Engineering: Russell Patterson
Geographic Coverage: International
Year Established: 1980
Number of Employees: 40

ASHTON, INC.
209 Tracy Creek Road
Vestal, NY 13850
(607) 748-0800
Major Market: Software House
Geographic Coverage: National
Year Established: 1969
Number of Employees: 9

AST RESEARCH, INC.
2121 Alton Ave.
Irvine, CA 92714
(714) 863-1333
Major Market: Peripheral and Communications Equipment Manufacturing
Target Industries: Banking, Communications; OA; IBM PC users
Contacts:
Head of Marketing: Tom Yuen
Head of Sales: Tom Stickel
Head of Engineering: Albert Wong
Geographic Coverage: International
Year Established: 1980
Number of Employees: 167

ASTROCOM CORP.
120 W. Plato Blvd.
St. Paul, MN 55107
(612) 227-8651
Major Market: Component, Computer and Communications Equipment Manufacturing
Contacts:
Head of Marketing/Sales: Kent Johnson
Head of Software: Michael Anderson
Head of Engineering: Don Kaffein
Geographic Coverage: International
Year Established: 1968
Number of Employees: 150

ATARI, INC.
P.O. Box 427
1265 Borregas Ave
Sunnyvale, CA 94086
(408) 745-2000
Major Market: Computer Manufacturing, OEM (Computer Systems), Software House
Target Industries: Personal Computer; Education
Target Applications: Educational, General Business, Games
Contacts:
Head of Marketing: Tom McDonough
Head of Engineering: Marcian E. Hoff Jr.
Geographic Coverage: International
Year Established: 1972
Number of Employees: 9,000

ATLANTIC RESEARCH CORP.
5390 Cherokee Ave
Alexandria, VA 22312
(703) 644-9190
Major Market: Communications Equipment Manufacturing
Target Industries: Fortune 1000, Banking, Manufacturing
Target Applications: Data Communications
Contacts:
Head of Marketing: Keith Britton
Head of Sales: Daniel Ebert
Head of Engineering: J.L. Wallace
Geographic Coverage: International
Year Established: 1949
Number of Employees: 1,800

ATON INTERNATIONAL, INC.
Suite 119
1765 Scott Ave.
Santa Clara, CA 95050
(408) 554-9922
Major Market: Software House
Geographic Coverage: International
Year Established: 1979
Number of Employees: 2

AUSCOM, INC.
2007 Kramer Lane
Austin, TX 78758
(512) 836-8080
Major Market: Communications Equipment Manufacturing
Target Industries: Systems Integrators
Net Sales: $1 Million - $5 Million (1981)
Contacts:
Head of Marketing: Linda Lewis
Head of Engineering: Iraj Vojdani
Geographic Coverage: National
Year Established: 1980
Number of Employees: 15

AT&T INFORMATION SYSTEMS, INC.
100 Southgate
Morristown, NJ 07960
(201) 898-2000
Major Markets: Communication Equipment Manufacturing
Target Industries: Communication
Target Applications: Switching
Contacts:
Head of Marketing/Sales: Robert Casale
Head of Customer Service: Bruce Schwartz
Geographic Coverage: International

AUTOMATED BUSINESS CENTERS
Suite 108
10205 Oasis Dr.
San Antonio, TX 78216
(512) 349-3190
Major Market: Software House, Data Services (Service Bureau); Dealer/Distributor
Net Sales: $500,000 - $1 Million (1982)
Contacts:
Head of Sales/Marketing: Fred Gildert
Geographic Coverage: National
Year Established: 1969
Number of Employees: 15

AUTOMATED PROFESSIONAL SYSTEMS
1450 Broadway
New York, NY 10019
(212) 869-9330
Major Market: Computer Manufacturing; Software House.
Contacts:
Head of Marketing: Doug Sharp
Head of Sales: Don Thompson
Geographic Coverage: International
Year Established: 1976
Number of Employees: 14

AUTOMATION DESIGN, INC.
Suite 1910
500 N. Michigan Ave.
Chicago, IL 60611
(312) 670-2660
Major Market: Software House
Target Industries: Finance, Medical
Contacts:
Head of Customer Service: Peter Scewell
Geographic Coverage: National
Year Established: 1976
Number of Employees: 27

AVANTI COMMUNICATIONS CORP.
Aquidneck Industrial Park
Newport, RI 02840
(401) 849-4660
Major Market: Communications Equipment Manufacturing
Target Applications: Local Data Communications
Net Sales: $1 Million - $5 Million (1981)
Contacts:
Head of Marketing: George Kushin
Head of Sales: William Smith
Head of Engineering: Paul Fredette
Head of Customer Service: Wayne Smith
Geographic Coverage: International
Year Established: 1976
Number of Employees: 88

AVATAR TECHNOLOGIES, INC.
99 South St.
Hopkington, MA 01748
(617) 435-6872
Major Market: Communications Equipment Manufacturing
Target Applications: Communications
Contacts:
Head of Marketing: Daniel Lewis
Geographic Coverage: National
Year Established: 1981
Number of Employees: 70

AVCOM, INC.
275 Smothers Road
Westerville, OH 43081
(614) 882-8176
Major Market: Communications Equipment Manufacturing,
Year Established: 1970
Number of Employees: 3

A. W. COMPUTER SYSTEMS, INC.
Woods Road
Rt. 38
Cherry Hill, NJ 08002
(609) 779-7200
Major Market: Communications Equipment Manufacturing; OEM (Computer Systems); Systems House (Commercial OEM); Miscellaneous Computer Supplies
Target Industries: Retail
Target Applications: POS, Realtime Inventory
Net Sales: $1 Million - $5 Million (1981)
Contacts:
Head of Marketing: Di Simone
Head of Software: Mike Greenblatt
Head of Engineering: Charles Welch
Head of Customer Service: Andy Nye
Geographic Coverage: International
Year Established: 1973
Number of Employees: 17

BACKUS DATA SYSTEMS
1440 Koll Circle
San Jose, CA 95112
(408) 279-8711
Major Market: Communications Equipment Manufacturing; Dealer/Distributor
Target Applications: Protocol Emulation
Net Sales: $1 Million - $5 Million (1981)
Contacts:
Head of Marketing: A. W. Backus
Head of Software/Engineering: L. Marsala
Geographic Coverage: National
Year Established: 1974
Number of Employees: 20

BAIR SYSTEMS, INC.
Suite 315
2500 Blue Ridge Road
Raleigh, NC 27607
(919) 782-4482
Major Market: Software House
Net Sales: Less than $100,000 (1982)
Contacts:
Head of Marketing/Sales: Anthony J. Barr

Vendors

Geographic Coverage: International
Year Established: 1978
Number of Employees: 3

BASIC BUSINESS CONTROL SYSTEMS, INC.
4330 Stafford S W
Grand Rapids, MI 49508
(616) 531-2202
Major Market: Software House, Systems House (Commercial OEM); Dealer/Distributor
Target Industries: Retail, Commercial; Government; Education
Target Applications: POS
Contacts:
Head of Sales: Michael Goodyear
Geographic Coverage: Michigan
Year Established: 1961
Number of Employees: 20

BASS SHEED ASSOCIATES, INC.
P O Box 646
20 W Ridgewood
Ridgewood, NJ 07450
(201) 444-3411
Major Market: Software House; Systems House (Commercial OEM)
Target Industries: Military, Industrial; Commercial
Net Sales: $100,000 - $500,000 (1981)
Geographic Coverage: Greater New York
Year Established: 1980
Number of Employees: 5

BAY TECHNICAL ASSOCIATES, INC.
P O. Box 387
Highway 603
Bay St. Lois. MS 39520
(601) 467-8231
Major Market: Communications Equipment Manufacturing
Target Applications: Data Communications
Contacts:
Head of Marketing: E. Hayden Parker
Head of Sales: C R Ramsey
Head of Engineering: M.R. McIver
Year Established: 1974
Number of Employees: 25

BBN COMMUNICATIONS CORP.
Information Management Systems
70 Fawcett St.
Cambridge, MA 02238
(617) 491-1850
Major Market: Communications Equipment Manufacturing; Software House; Consulting
Target Industries: Manufacturing, Insurance
Target Applications: Data Communications
Contacts:
Head of Marketing: Chuck Stein
Head of Sales: Terry Fagin
Head of Software: Robert Harvey
Geographic Coverage: National
Year Established: 1980

BELDEN CORP.
Cooper Industries
2000 S. Batavia Ave.
Geneva, IL 60134
(312) 232-8900
Major Market: Communications Equipment Manufacturing
Contacts:
Head of Marketing. Jim Sopp
Geographic Coverage: National
Year Established: 1902
Number of Employees: 1,000

BENSON C. STONE & ASSOCIATES
P O Box 28658
San Diego, CA 92127
(714) 485-7779
Major Market: Software House
Net Sales: $100,000 - $500,000 (1981)
Geographic Coverage: National
Year Established: 1975
Number of Employees: 5

BETACOM CORP.
245 E Sixth St.
Suite 614
St. Paul, MN 55101
(612) 292-8196
Major Market: Computer and Communications Equipment Manufacturing
Target Industries: Insurance, Legal, Business
Contacts:
Head of Marketing: Bill Presley
Head of Sales John Zentz
Head of Software: Jerry Thornbeck
Head of Engineering: Al Nuendorf
Geographic Coverage: International
Year Established: 1979
Number of Employees: 24

BIZCOMP
532 Weddell Dr
Sunnyvale, CA 94089
(408) 745-1616
Major Market: Communications Equipment Manufacturing
Contacts:
Head of Marketing Bruce Miller
Head of Sales. Peter Stokes
Year Established: 1978
Number of Employees: 100

BLACK BOX CATALOG/ EXPANDOR, INC.
Mayview Road
Park Dr
Pittsburgh, PA 15241
(412) 746-5500
Major Market: Communications Equipment Manufacturing
Contacts:
Head of Marketing: Peter Highberg
Geographic Coverage: International
Year Established: 1976

BO-SHERREL CO., INC.
36133 Niles Blvd.
Fremont, CA 94536
(415) 792-0354
Major Market: Peripheral and Communications Equipment Manufacturing
Net Sales: $1 Million - $5 Million (1982)
Contacts:
Head of Marketing: Carlene L. Rathert
Geographic Coverage: International
Year Established: 1975
Number of Employees: 10

BONNECAZE, MCLEROY & HARRISON
Suite 112
4125 Keller Springs Road
Dallas, TX 75234
(214) 484-0530
Major Market: Software House
Net Sales: $100,000 - $500,000 (1981)
Geographic Coverage: International
Year Established: 1978
Number of Employees: 6

BRAEGEN CORP.
MTTS
525 Los Conches St
Milpitas, CA 95034
(408) 945-1900
Major Market: Terminal, Peripheral and Communications Equipment Manufacturing; Automatic Tape Library
Target Industries: Financial; Government; Insurance, Manufacturing
Contacts:
Head of Sales: Ray Foster
Head of Software Peggy Dent
Head of Engineering: Ken McCoy
Geographic Coverage: National
Year Established: 1973
Number of Employees: 500

BROADBAND SYSTEMS, INC.
807 Grundy Ave.
Holbrook, NY 11741
(516) 981-4613
Major Market: Communications Equipment Manufacturing; Systems House (Commercial OEM), Consulting, Communications
Target Industries: Banking; Engineering
Target Applications: Local Area Networks, CAD/CAM; Microwave Communications, Fiber-Optic Communications
Net Sales: $500,000 - $1 Million (1982)
Geographic Coverage: National
Year Established: 1976
Number of Employees: 25

BUNKERSEE ENERGY SYSTEMS
456 W State St.
Trenton, NJ 08616
(609) 392-1200
Major Market: Component, Computer and Communications Equipment Manufacturing; Software House
Target Industries: Energy Management; Housing; Large Apartment Complexes
Target Applications: Energy Management; Process Control
Contacts:
Head of Marketing: Hy Gold
Head of Software: Mike Linksbloom
Head of Engineering: Chip Bloodgood
Geographic Coverage: Regional
Year Established: 1981
Number of Employees: 10

BURROUGHS CORP.
Business Machines Groups
Burroughs Place
Detroit, MI 48232
(313) 972-7000
Major Market: Component, Computer, Terminal, Peripheral, Communications Equipment and Office Equipment Manufacturing; OEM (Computer Systems); Software House, Data Services (Service Bureau); Dealer/Distributor
Target Industries: Financial; Distribution; Manufacturing, Education
Geographic Coverage: National
Year Established: 1885

BURROUGHS CORP.
Burroughs Place
Detroit, MI 48232
(313) 972-7000
Major Market: Computer, Communications Equipment and Office Equipment Manufacturing, OEM (Computer Systems); Software House, Dealer/Distributor
Target Industries: Government, OA, Office Supply, Finance
Geographic Coverage: International
Year Established: 1885
Number of Employees: 62,000

BYTCOM, INC.
Suite H
2196 Francisco Blvd
San Rafael, CA 94901
(800) 227-3254
Major Market: Peripheral, Communications Equipment and Office Equipment Manufacturing; OEM (Peripherals-Terminals); Data Services (Service Bureau)
Target Industries: Banking; Timesharing Services, Dealers and Distributors; PC users
Target Applications: Data Compression, Modem, Multiplexer; Protocol Converting
Contacts:
Head of Marketing: Gary Sorkin
Year Established: 1983
Number of Employees: 150

BYTEX CORP.
2 California Ave
Framingham, MA 01701
(617) 879-5050
Major Market: Communications Equipment Manufacturing
Target Industries: Transportation; Banking; Network Services
Net Sales: Less than $100,000 (1981)
Contacts:
Head of Sales: Ralph W Lowry
Head of Software: Beng-Woei Lu
Head of Engineering: Kenneth Holberger
Head of Customer Service: Glenn Hill
Geographic Coverage: International
Year Established: 1980
Number of Employees: 50

C & W RICOTEL LTD.
48th Floor
110 Penn Plaza
New York, NY 10119
(212) 594-8340
Major Market: Software House,

Systems House (Commercial OEM)
Target Industries: Banking, Airlines; Shipping; Military
Target Applications: Storm Forecasts; Message Switching
Contacts:
Head of Marketing/Sales: John Phillips
Head of Engineering: Larry Reznick
Geographic Coverage: International
Year Established: 1970
Number of Employees: 40

CABLEMUX SYSTEMS CORP.
7869 S. W. Nimbus
Beaverton, OR 97005
(503) 643-3329
Major Market: Communications Equipment Manufacturing
Target Industries: Communications, Cable TV
Contacts:
Head of Marketing: David Park
Head of Engineering: Mike Connor
Geographic Coverage: International
Year Established: 1976
Number of Employees: 25

CANOGA DATA SYSTEMS
21218 Van Owen St.
Canoga Park, CA 91303
(213) 888-2003
Major Market: Communications Equipment Manufacturing
Target Industries: Communication
Target Applications: Multiplexing
Contacts:
Head of Sales: Jack Miller
Head of Engineering: Mas NaKamori
Geographic Coverage: International
Year Established: 1976
Number of Employees: 110

CANON U.S.A., INC.
One Canon Plaza
Lake Success, NY 11042
(516) 488-6700
Major Market: Computer, Peripheral and Office Equipment Manufacturing; OEM (Computer Systems); Systems House (Commercial OEM)
Geographic Coverage: International
Year Established: 1968
Number of Employees: 2,500

CAP INFORMATION SYSTEMS
34th Floor
521 Fifth Ave.
New York, NY 10175
(212) 599-7000
Major Market: Software House
Target Industries: Banking, Manufacturing, Retail
Net Sales: $1 Million - $5 Million (1981)
Contacts:
Head of Marketing: Bernard S. Donefer
Head of Sales: Andrew Coleman
Head of Customer Service: Roy Kiszka
Geographic Coverage: International
Year Established: 1978
Number of Employees: 60

CARNEY ASSOCIATES, INC.
6000A W. Broad St.
Richmond, VA 23230
(804) 288-8341
Major Market: Software House, Systems House (Commercial OEM)
Target Industries: Retail Fashions and Drugs
Target Applications: Remote Job Entry; Hand-held Data Entry; POS, Communications Networks
Net Sales: $500,000 - $1 Million (1981)
Contacts:
Head of Marketing: Homer C. Carney
Head of Software: R. R. Gingras
Geographic Coverage: Regional
Year Established: 1977
Number of Employees: 10

CATEL
United Scientific Corp
4800 Patrick Henry Dr.
Santa Clara, CA 95054
(408) 988-7722
Major Market: Communications Equipment Manufacturing
Target Industries: Data Communications, Military, Telephone, Cable TV
Contacts:
Head of Marketing: Jim McLane
Head of Sales: Dick Old
Head of Engineering: Charles Robidart
Head of Customer Service: J. R. Helmer
Geographic Coverage: International
Year Established: 1968
Number of Employees: 200

CENTURY ANALYSIS, INC.
114 Center Ave.
Pacheco, CA 94553
(415) 680-7800
Major Market: OEM (Computer Systems); OEM (Peripherals-Terminals), Software House
Target Industries: General Marketing
Contacts:
Head of Marketing: Clayton L. Parkhill
Head of Customer Service: Frank Zaccari
Geographic Coverage: International
Year Established: 1975
Number of Employees: 60

CERMETEK MICROELECTRONICS
1308 Borregas Ave
Sunnyvale, CA 94089
(408) 734-8150
Major Market: Component and Communications Equipment Manufacturing
Contacts:
Head of Marketing: Nancy Hass
Head of Sales: Rene Colgate
Year Established: 1983
Number of Employees: 100

CHI CORP.
26055 Emery Road
Cleveland, OH 44128
(216) 831-2822
Major Market: Terminal and Communications Equipment Manufacturing; OEM (Computer Systems), Systems House (Commercial OEM); Data Services (Service Bureau)
Contacts:
Head of Marketing: Maurice Kittle
Geographic Coverage: International
Year Established: 1976
Number of Employees: 24

CHUMA TELECOMMUNICATIONS
Suite 30
450 San Antonio
Palo Alto, CA 94306
(415) 8562456
Major Market: Communications Equipment Manufacturing
Target Industries: Data Communications
Contacts:
Head of Marketing/Sales: May Chung
Year Established: 1982
Number of Employees: 100

CINCOM SYSTEMS, INC.
2300 Montana Ave
Cincinnati, OH 45211
(513) 662-2300
Major Market: Software House
Target Industries: Cross Industry
Target Applications: Data Base/Data Communications; Manufacturing; Financial
Contacts:
Head of Marketing/Sales: Dennis Yablonsky
Geographic Coverage: International
Year Established: 1968
Number of Employees: 1,000

CISNETWORK
3401 Science Center
Philadelphia, PA 19104
Major Market: Software House; Data Services (Service Bureau)
Target Industries: Finance, Education, Government
Geographic Coverage: National
Year Established: 1972
Number of Employees: 125

COASTCOM
2312 Stanwell Drive
Concord, CA 94520
(415) 825-7300
Major Market: Component Manufacturing; Communications Equipment Manufacturing
Target Industries: Telephone; Radio, Telecommunications
Target Applications: Voice/Data Communications
Contacts:
Head of Marketing/Sales: William Martin
Head of Engineering: Tonay Warren
Head of Customer Service: Paul Rivard
Geographic Coverage: International
Year Established: 1968
Number of Employees: 95

COBE CORP.
Suite 200
2001 W. Beltline Highway
Madison, WI 53713
(608) 274-7416
Major Market: Software House; Systems House (Commercial OEM)
Target Industries: Financial
Target Applications: DBMS
Contacts:
Head of Marketing: Daphne Brayner
Geographic Coverage: National
Year Established: 1976
Number of Employees: 25

COGNEX TECHNOLOGY CORP.
1066 N. Broadway
Yonkers, NY 10701
(914) 965-6300
Major Market: Communications Equipment Manufacturing
Target Industries: Telecommunications, Process Control; Communications
Contacts:
Head of Marketing/Sales: Mike Coden
Head of Engineering: Dr. Frederick Scholl
Geographic Coverage: International
Year Established: 1980
Number of Employees: 50

CODEX CORP.

20 Cabot Blvd.
Mansfield, MA 02048
(617) 364-2000
Major Market: Computer, Terminal, Peripheral and Communications Equipment Manufacturing
Target Applications: Data Communications; DP
Contacts:
Head of Marketing: John Pugh
Head of Sales: Dennis Kinch
Geographic Coverage: International
Year Established: 1962
Number of Employees: 2,500

COHERENT COMMUNICATIONS SYSTEMS CORP.
60 Commerce Dr.
Hauppauge, NY 11788
(516) 231-1550
Major Market: Communications Equipment Manufacturing
Contacts:
Head of Marketing: Dennis McAlpine
Head of Engineering: Arthur B. Williams
Geographic Coverage: International
Year Established: 1968
Number of Employees: 150

COMI DATA
7900 N. Nagle Ave.
Morton Grove, IL 60053
(312) 470-8600
Major Market: Communications Equipment Manufacturing
Contacts:
Head of Customer Service: Sue Clifford
Geographic Coverage: National
Year Established: 1968
Number of Employees: 40

COMI/TECH SYSTEMS, INC.
505 Eighth Ave.
New York, NY 10018
(212) 594-5377
Major Market: Communications Equipment Manufacturing
Contacts:
Head of Marketing: Carl M. Mangani

Vendors

Geographic Coverage: International
Year Established: 1969
Number of Employees: 10

COMDESIGN, INC.
751 S. Kellog
Goleta, CA 93117
(805) 964-9852
Major Market: Communications Equipment Manufacturing
Contacts:
Head of Marketing: Arlas Schiff
Geographic Coverage: International
Year Established: 1977
Number of Employees: 100

COMM PRO ASSOCIATES
350 N. Sepulveda Blvd.
Manhattan Beach, CA 90266
(213) 376-1344
Major Market: Software House
Net Sales: $500,000 - $1 Million (1981)
Contacts:
Head of Marketing: Steve Dubow
Geographic Coverage: International
Year Established: 1973
Number of Employees: 3

COMMEX, LTD.
141 Central Park Ave S
Hartsdale, NY 10530
(703) 821-8766
Major Market: Component and Communications Equipment Manufacturing
Target Applications: Communications
Net Sales: $1 Million - $5 Million (1982)
Contacts:
Head of Engineering: James Southworth
Geographic Coverage: International
Year Established: 1980
Number of Employees: 20

COMMODORE BUSINESS MACHINES, INC.
1200 Wilson Dr
West Chester, PA 19380
(215) 431-9100
Major Market: Component, Computer, Terminal, Peripheral and Communications Equipment Manufacturing; Software House
Contacts:
Head of Marketing/Sales: Myrddin Jones
Geographic Coverage: International
Year Established: 1976
Number of Employees: 520

COMMTEX, INC.
2411 Crofton Lane
Crofton, MD 21114
(301) 721-3686
Major Market: Communications Equipment Manufacturing
Target Applications: OA
Contacts:
Head of Marketing: George Lockwood
Head of Software: Dorothy C. Neiman
Head of Engineering: Stephen E. Hall
Geographic Coverage: International
Year Established: 1977
Number of Employees: 75

COMMUNICATION DEVICES, INC.
1 Forstman Court
Clifton, NJ 07011
(201) 772-6997
Major Market: Communications Equipment Manufacturing; Dealer/Distributor
Target Industries: Newspaper; Banking
Target Applications: Interfacing and Data, Data Communications
Net Sales: $1 Million - $5 Million (1982)
Contacts:
Head of Marketing: K. Kelly
Head of Software: T. Kelly
Head of Engineering: R. Kelly
Head of Customer Service: Barbara Grembowiec
Geographic Coverage: International
Year Established: 1975
Number of Employees: 15

COMMUNICATION RESEARCH CORP.
1720 130th N E.
Bellevue, WA 98005
(206) 881-9550
Major Market: Computer and Communications Equipment Manufacturing; OEM (Peripherals-Terminals)
Target Applications: Data Encryption; Data Transmission
Contacts:
Head of Marketing: J.J. Harkins
Geographic Coverage: National
Year Established: 1979
Number of Employees: 22

COMP-U-STAFF, INC.
1 Investment Place P-4
Towson, MD 21204
(301) 828-0766
Major Market: Software House, Systems House (Commercial OEM)
Target Industries: Manufacturing; Engineering; Banking; Insurance
Target Applications: Material Handling; CAD/CAM Manufacturing; Banking
Net Sales: $1 Million - $5 Million (1981)
Contacts:
Head of Marketing: Thomas R. Cornell
Head of Software: Douglas Sharp
Geographic Coverage: International
Year Established: 1978
Number of Employees: 100

COMPACON CORP.
1101 E. University Ave.
Urbana, IL 61801
(217) 384-8500
Major Market: Software House
Target Industries: Government; Banking
Contacts:
Head of Sales: Gary Tauss
Geographic Coverage: National
Year Established: 1977
Number of Employees: 68

COMPLEX SYSTEMS, INC.
4930 Research Dr.
Huntsville, AL 35805
(205) 830-4130
Major Market: Communications Equipment Manufacturing
Target Applications: Local-Area Networks
Contacts:
Head of Sales: Bill Thomas
Head of Engineering: Bayron Driver
Year Established: 1982
Number of Employees: 30

COMPRE COMM, INC.
3200 N. Farber Dr.
Champaign, IL 61821
(217) 352-2477
Major Market: Communications Equipment Manufacturing
Net Sales: $1 Million - $5 Million (1982)
Contacts:
Head of Marketing: Ron Sockel
Head of Sales/Engineering: Andrew B. White
Head of Software: Michael Sacre
Geographic Coverage: International
Year Established: 1977
Number of Employees: 40

COMPU-DRAW
1227 Goler Houser
Rochester, NY 14620
(716) 454-3168
Major Market: Software House
Target Industries: Small Business
Target Applications: Time-Sharing; Protocol Conversion; Mail List
Geographic Coverage: National
Year Established: 1982
Number of Employees: 6

COMPUCORP
2211 Michigan Ave.
Santa Monica, CA 90404
(213) 829-7453
Major Market: Computer and Office Equipment Manufacturing, Data Services (Service Bureau)
Target Industries: Legal; Business
Target Applications: WP; Accounting
Contacts:
Head of Marketing: S. Cimbolost
Geographic Coverage: International
Year Established: 1968
Number of Employees: 500

COMPUTAX SYSTEMS, INC.
7471 University Ave.
La Mesa, CA 92041
(714) 462-5420
Major Market: Software House; Systems House (Commercial OEM); Data Services (Service Bureau)
Contacts:
Head of Sales: Don Middleton
Geographic Coverage: National

COMPUTER AUTOMATION, INC.
Commercial Systems Division
1800 Jay Ell Dr.
Richardson, TX 75019
(214) 783-0983
Major Market: Computer and Communications Equipment Manufacturing
Target Industries: Distribution; End Users
Contacts:
Head of Marketing: Steve Konarek
Geographic Coverage: International
Year Established: 1975
Number of Employees: 200

COMPUTER COMMUNICATIONS, INC.
2610 Columbia St.
Torrance, CA 90503
(213) 820-9101
Major Market: Communications Equipment and Office Equipment Manufacturing; OEM (Computer Systems)
Contacts:
Head of Marketing: Gary Brumfield
Head of Sales: Robert L. Cole
Head of Software: Anthony Fonze
Head of Engineering: Carl Vanderbeck
Geographic Coverage: International
Year Established: 1966
Number of Employees: 150

COMPUTER COMMUNICATIONS SPECIALISTS, INC.
6663 Jimmy Carter Blvd.
Norcross, GA 30071
(404) 441-3114
Major Market: Component, Peripheral and Communications Equipment Manufacturing; OEM (Computer Systems), Software House; Systems House (Commercial OEM)
Target Industries: Utilities, Manufacturing; Retail; Wholesale
Target Applications: Data Entry; POS Polling; Badge Readers; Bar Code Readers
Net Sales: $1 Million - $5 Million (1982)
Contacts:
Head of Marketing: Steve A. Auderher
Head of Software: R. L. Pass
Head of Engineering: Dr. Dwight Jones
Geographic Coverage: International
Year Established: 1977
Number of Employees: 40

COMPUTER CORNER
22 Beechurst Ave.
Morgantown, WV 26505
(304) 292-9700
Major Market: Software House; Dealer/Distributor
Contacts:
Head of Marketing: Mike Matz
Geographic Coverage: Mid-Atlantic
Year Established: 1975
Number of Employees: 15

COMPUTER DEVELOPMENT, INC.
6700 S.W. 105th
Beaverton, OR 97005
(503) 646-1599
Major Market: Communications Equipment Manufacturing
Contacts:
Head of Sales: Penny Estes
Head of Engineering: Gordon Collett
Head of Customer Service: Kathy Ferguson
Geographic Coverage: National
Year Established: 1977
Number of Employees: 70

COMPUTER IDENTICS CORP.
5 Shawmut Road
Canton, MA 02021
(617) 821-0830
Major Market: Peripheral Manufacturing; OEM (Computer Systems); Code Scanning
Target Industries: Materials Handling; Food Distribution
Target Applications: Distribution Management; Production Management; Inventory Control; Data Acquisition
Net Sales: $5 Million - $25 Million (1982)
Contacts:
Head of Marketing: Robert Shallow
Head of Software: Theodore Williams
Head of Engineering: Chris B. Kapsambelis
Head of Customer Service: Richard Mordaunt
Geographic Coverage: International
Year Established: 1968
Number of Employees: 110

COMPUTER INFORMATION ENTERPRISES
13030 Euclid
Garden Grove, CA 92643
(714) 534-0202
Major Market: Software House; Systems House (Commercial OEM); Data Services (Service Bureau); Dealer/Distributor
Target Applications: WP; Network Communications, Business Software; Retail
Net Sales: $1 Million - $5 Million (1981)
Contacts:
Head of Marketing: Gary Irwin
Head of Software: Craig Chandler
Geographic Coverage: National
Year Established: 1975
Number of Employees: 8

COMPUTER INQUIRY SYSTEMS, INC.
160 Hopper Ave.
Waldwick, NJ 07463
(201) 444-8900
Major Market: Communications Equipment Manufacturing, OEM (Computer Systems); OEM (Peripherals-Terminals)
Target Industries: Pharmaceutical; Manufacturing
Target Applications: Laboratory Automation, Laboratory Management
Net Sales: $1 Million - $5 Million (1982)
Geographic Coverage: International
Year Established: 1969
Number of Employees: 45

COMPUTER PERIPHERAL SYSTEMS, INC.
P.O. Box 98282
Atlanta, GA 30359
(404) 292-9565
Major Market: Communications Equipment Manufacturing; Systems House (Commercial OEM); Dealer/Distributor
Target Industries: Burroughs; Data Communications Networks
Target Applications: Data Communications Networks
Contacts:
Head of Marketing: Richard Fetsko
Number of Employees: 6

COMPUTER SYSTEMS
26401 Harper Ave.
St. Clair Shores, MI 48081
(313) 779-8709
Major Market: Component, Computer and Communications Equipment Manufacturing; OEM (Computer Systems)
Target Industries: Industrial; Engineering
Target Applications: Graphics; Communications; Control System; Data Acquisition
Contacts:
Head of Marketing: Robert Martin
Geographic Coverage: National
Year Established: 1967
Number of Employees: 20

COMPUTER TOOLBOX, INC.
1325 E. Main St.
Waterbury, CT 06705
(203) 754-4197
Major Market: OEM (Computer Systems); Software House; Dealer/Distributor
Target Industries: Programmers
Target Applications: Development Tools; Communications
Geographic Coverage: International
Year Established: 1979
Number of Employees: 3

COMPUTERWARE SOFTWARE UNLIMITED
Suite 226
2129 Germantown Road S.
Memphis, TN 38138
(901) 754-8332
Major Market: Software House
Net Sales: $100,000 - $500,000 (1981)
Contacts:
Head of Marketing: Michael Pfaff
Geographic Coverage: International
Year Established: 1976
Number of Employees: 5

COMPUTRES, INC.
401 N. 117th St.
Omaha, NE 68154
(402) 330-1311
Major Market: Software House; Systems House (Commercial OEM); Data Services (Service Bureau); Dealer/Distributor
Target Industries: Manufacturing; Retail
Target Applications: Order Processing; Accounting
Contacts:
Head of Software: Bob Bohac
Geographic Coverage: Regional
Year Established: 1978
Number of Employees: 7

COMPUTROL
15 Eason Allen Highway
Ridgefield, CT
(203) 544-8371
Major Market: Computer and Communications Equipment Manufacturing
Contacts:
Head of Marketing: Charles Brewer
Head of Sales: John Ricketson
Year Established: 1971
Number of Employees: 75

COMPUTRONICS
130 N. Ash
Wood Dale, IL 60191
(312) 860-7707
Major Market: Software House
Net Sales: Less than $100,000 (1981)
Contacts:
Head of Sales: Deborah Styka
Geographic Coverage: International
Year Established: 1977
Number of Employees: 4

COMPUVIEW PRODUCTS
1955 Pauline Blvd.
Ann Arbor, MI 48103
(313) 996-1299
Major Market: Software House
Target Applications: Text Editing; Disassembler; Telecommunications; Print Buffer
Net Sales: $100,000 - $500,000 (1982)
Contacts:
Head of Marketing: John Cain
Head of Sales: Brian Howard
Head of Software: Jeff Brown
Geographic Coverage: International
Year Established: 1980
Number of Employees: 12

COMPUWARE CORP.
Systems Software Division
32100 Telegraph Rd.
Birmingham, MI 48010
(313) 540-0400
Major Market: Software House; Systems House (Commercial OEM)
Contacts:
Head of Marketing: Alan B. Cutting
Geographic Coverage: International
Year Established: 1979
Number of Employees: 350

COMREX INTERNATIONAL
Suite 120
3701 Skypark Drive
Torrance, CA 90505
(213) 373-0280
Major Market: Component, Computer, Peripheral and Communications Equipment Manufacturing; OEM (Peripherals-Terminals)
Target Industries: Business; Home
Contacts:
Head of Marketing: Robert Pearce
Head of Sales: Bill Falkenstein
Head of Engineering: Marshall Brown
Head of Customer Service: Judy Fuller
Geographic Coverage: International
Year Established: 1981
Number of Employees: 24

COSMPSC, INC.
Suite 275
10000 Old Katy Road
Houston, TX 77055
(713) 461-4487
Major Market: Software House; Systems House (Commercial OEM); Dealer/Distributor
Contacts:
Head of Marketing/Sales: R. W. Irish
Head of Software/Engineering: Don Kidd
Geographic Coverage: International
Year Established: 1972
Number of Employees: 55

CONTECH DATA CORP.
350 N. Hayden Road
Scottsdale, AZ 85253
(602) 948-1155
Major Market: Communications Equipment Manufacturing; Systems House (Commercial OEM)
Target Applications: High-Speed Data Transmission
Contacts:
Head of Marketing: Jerry Rutsner
Head of Engineering: Bob Fitting
Year Established: 1978
Number of Employees: 200

CONCORD DATA SYSTEMS, INC.

303 Bear Hill Road
Waltham, MA 02154
(617) 890-1304
Major Market: Communications Equipment Manufacturing
Contacts:
Head of Sales: Steven Puchkoff
Head of Engineering: Ross Seider
Head of Customer Service: Steven Puchkoff
Geographic Coverage: National
Year Established: 1981
Number of Employees: 70

CONNECTICUT MICROCOMPUTER, INC.
36 Del Mar Dr.
Brookfield, CT 06804
(203) 775-4595
Major Market: Communications Equipment Manufacturing
Target Industries: Engineering; Industry; Laboratories, Education
Contacts:
Head of Engineering: Richard Roemer
Geographic Coverage: International
Year Established: 1977
Number of Employees: 8

CONTEL INFORMATION SYSTEMS
130 Steamboat Road
Great Neck, NY 11024
(516) 829-5900
Major Market: Communications Equipment Manufacturing, Software House, Systems House (Commercial OEM)
Target Industries: Manufacturing; Insurance; Securities
Target Applications: Telecommunications, Real-Time Processors
Contacts:
Head of Marketing: G. Thomas Catherines
Geographic Coverage: National
Year Established: 1969
Number of Employees: 300

CONTROL CONCEPTS
12004-B Bells Ford Road
P.O. Box 2367
Manassas, VA 22110

Vendors

(800) 368-3078
Major Market: Terminal and Peripheral Manufacturing; OEM (Peripherals-Terminals); Dealer/Distributor
Target Industries: Banking; Insurance; Education; Software Houses
Target Applications: Remote Workstations
Net Sales: $25 Million - $100 Million (1983)
Contacts:
Head of Marketing/Sales: Samuel Ginder
Head of Engineering: Roy Peters
Geographic Coverage: National
Year Established: 1968
Number of Employees: 420

CONTROL DATA CORP.
8100 34th Ave. S.
Minneapolis, MN 55440
(612) 853-8100
Major Market: Component, Computer, Terminal, Peripheral and Communications Equipment Manufacturing; Data Services (Service Bureau)
Target Industries: Manufacturing; Electric Utilities; Petroleum/Mining; Education
Target Applications: CAD/CAM; Computer-Based Education; Petroleum Exploration; Electrical Engineering
Contacts:
Head of Marketing: Tom Miller
Head of Customer Service: Gerald W. Gilbert
Geographic Coverage: International
Year Established: 1957
Number of Employees: 57,000

CONVERGENT TECHNOLOGIES, INC.
2500 Augustine Dr.
Santa Clara, CA 95051
(408) 727-8830
Major Market: Computer Manufacturing
Target Industries: OEM
Contacts:
Head of Sales: Richard Morse
Geographic Coverage: International
Year Established: 1979
Number of Employees: 620

CONVERSATIONAL VOICE TERMINAL CORP.
4205 Grove Ave.
Gurnee, IL 60031
(312) 266-6633
Major Market: Terminal and Communications Equipment Manufacturing
Net Sales: $1 Million - $5 Million (1982)
Contacts:
Head of Marketing: Barbara Lounsbery
Head of Sales: Robert Morgan
Geographic Coverage: International
Year Established: 1968
Number of Employees: 25

CORVUS SYSTEMS, INC.
2029 O'Toole Ave.
San Jose, CA 95131
(408) 946-7700
Major Market: Computer and Peripheral Manufacturing; Software House
Target Industries: Fortune 1000
Contacts:
Head of Marketing: Joseph D. Hughes
Head of Engineering: Joseph McMain
Geographic Coverage: International
Year Established: 1979
Number of Employees: 325

CPT CORP.
8100 Mitchell Road
P.O. Box 295
Minneapolis, MN 55440
(612) 937-8000
Major Market: Communications Equipment and Office Equipment Manufacturing; Software House; Systems House (Commercial OEM)
Target Applications: WP
Contacts:
Head of Marketing: Fred Vafer
Head of Sales: Bob Gallagher
Head of Engineering: Jim Wienhold
Geographic Coverage: International
Year Established: 1971
Number of Employees: 1,500

CR COMPUTER SYSTEMS
Suite 182
5456 McConell Ave
Los Angeles, CA 90066
(813) 822-5112
Major Market: Computer Manufacturing
Target Industries: Retail; Fortune 2000
Target Applications: Management
Contacts:
Head of Engineering: Jerry Lohoff
Geographic Coverage: International
Year Established: 1983
Number of Employees: 14

CROMEMCO, INC.
280 Bernardo Ave.
Mountain View, CA 94043
(415) 964-7400
Major Market: Component, Computer, Peripheral and Communications Equipment Manufacturing
Contacts:
Head of Marketing: Andrew Procassini
Head of Engineering: Dr. Roger Melen
Geographic Coverage: National
Year Established: 1975
Number of Employees: 500

CROSSPOINT SYSTEMS, INC.
P.O. Box 5131
81 Centennial Loop
Eugene, OR 97405
(503) 485-4254
Major Market: Communications Equipment Manufacturing
Target Industries: Newspapers; Publishing; Media
Net Sales: $100,000 - $500,000 (1981)
Contacts:
Head of Engineering: Fred Yunker
Geographic Coverage: National
Year Established: 1978
Number of Employees: 6

CULLINET SOFTWARE, INC.
400 Blue Hill Dr.
Westwood, MA 02090
(617) 329-7700
Major Market: Software House; Data Services (Service Bureau)
Target Industries: Banking; Insurance; Manufacturing
Target Applications: DBMS
Contacts:
Head of Marketing: Frank L. Chisholm
Geographic Coverage: International
Year Established: 1968
Number of Employees: 525

CXC CORP.
2852 Alton Ave.
Irvine, CA 92714
(714) 660-1801
Major Market: Communications Equipment Manufacturing
Target Industries: Fortune 500; Communications
Contacts:
Head of Marketing: Bob Hawk
Geographic Coverage: International
Year Established: 1981
Number of Employees: 200

CYB SYSTEMS, INC.
Suite D106
6448 Highway 290 E.
Austin, TX 78723
(512) 458-3224
Major Market: Computer Manufacturing
Target Industries: OEM
Contacts:
Head of Marketing: Mark Ellsworth
Head of Sales: John Osbourne
Head of Software: Brad Benton
Geographic Coverage: International
Year Established: 1982
Number of Employees: 40

CYGNET TECHNOLOGIES, INC.
1296 Lawrence Station Road
Sunnyvale, CA 94089
(408) 734-9846
Major Market: Peripheral, Communications Equipment and Office Equipment Manufacturing; Dealer/Distributor
Target Industries: Finance; Manufacturing; Banking; Services
Target Applications: Networks; Electronic Mail; Communications Management; Productivity
Contacts:
Head of Marketing: Jerry Klein
Head of Sales: Tony Liparino
Head of Software: Eric Ha
Head of Engineering: Lauren Yazolino
Head of Customer Service: Jim Rohde
Year Established: 1981
Number of Employees: 100

CYTROL, INC.
4620 W. 77th St.
Edina, MN 55435
(612) 835-4684
Major Market: Software House
Target Industries: Finance; Travel; Transportation; Manufacturing
Target Applications: Inventory; Securities Trading; Passenger Ticketing
Net Sales: $1 Million - $5 Million (1982)
Contacts:
Head of Marketing: Tom Lobb
Head of Software: Johan Nik Kirberg
Geographic Coverage: International
Year Established: 1969
Number of Employees: 85

D. L. MACHEN, ENGINEERING
2208 Landmeier Road
Elk Grove Village, IL 60007
(312) 952-8300
Major Market: OEM (Computer Systems); OEM (Peripherals-Terminals); Software House; Systems House (Commercial OEM); Dealer/Distributor
Target Industries: Medical; Retail Stores
Geographic Coverage: National
Year Established: 1971
Number of Employees: 5

D.S.M.
7871 Central Ave. N.E.
Minneapolis, MN 55432
(612) 784-7499
Major Market: Component Manufacturing; OEM (Computer Systems); Software House
Target Industries: Retail; Hotel; Mass Merchandising; Small Business
Net Sales: $100,000 - $500,000 (1982)
Geographic Coverage: International
Year Established: 1977
Number of Employees: 6

D&N MICRO PRODUCTS, INC.
3702 N. Wells St.
Fort Wayne, IN 46808
(219) 485-6414
Major Market: Component and Computer Manufacturing; OEM (Computer Systems); Software House; Dealer/Distributor
Target Industries: Manufacturing; Professional
Net Sales: $500,000 - $1 Million (1981)
Contacts:
Head of Sales: Jim Kuker
Geographic Coverage: International
Year Established: 1979
Number of Employees: 10

DAMFORD CORP.
350 W. 5th St.
San Pedro, CA 90731
(213) 832-6401
Major Market: Software House
Target Industries: Aerospace; Engineering
Target Applications: Graphics; Scientific; Engineering; Custom
Geographic Coverage: International
Year Established: 1982
Number of Employees: 10

DAROME, INC.
5725 E. River Road
Chicago, IL 60631
(312) 399-1610

Major Market: Communications Equipment Manufacturing
Target Applications: Teleconferencing
Contacts:
Head of Sales: Bob Stewart
Geographic Coverage: International
Year Established: 1969
Number of Employees: 50

DATA CONTROL SYSTEMS
1455 Research Blvd.
Rockville, MD 20850
(301) 279-8798
Major Market: Communications Equipment Manufacturing
Target Industries: Warehouses; Government Security; Aerospace
Net Sales: $1 Million - $5 Million (1981)
Contacts:
Head of Marketing: W. Stewart
Head of Sales: Glen Murphy
Geographic Coverage: International
Year Established: 1957
Number of Employees: 100

DATA GENERAL CORP.
Information Systems Division
4400 Computer Drive
Westboro, MA 01580
(617) 366-8911
Major Market: Component, Computer, Peripheral and Communications Equipment Manufacturing; Software House; Data Services (Service Bureau)
Target Industries: Fortune 1000
Target Applications: OA; Industrial Automation
Contacts:
Head of Marketing: Dave Lyons
Head of Sales: Jim Hertzel
Head of Software: Al Scura
Geographic Coverage: International
Year Established: 1969
Number of Employees: 15,000

DATA INDEX, INC.
4390 Alpha Road
Dallas, TX 75234
(214) 386-3829
Major Market: Software House; Systems House (Commercial OEM)
Target Industries: Cross Industry
Net Sales: $500,000 - $1 Million (1981)
Contacts:
Head of Marketing: Sharon Divsley
Head of Sales: R. L. McIntire
Geographic Coverage: International
Year Established: 1973
Number of Employees: 11

DATA PLUS, INC.
7205 E. Lockport Place
Larton, VA 22079
(703) 550-7914
Major Market: Peripheral and Communications Equipment Manufacturing
Target Applications: Data Communications; Telecommunications
Contacts:
Head of Software: Glen Cheyeson
Head of Engineering: George Pritz
Year Established: 1977
Number of Employees: 50

DATA SWITCH CORP.
444 Westport Ave.
Norwalk, CT 06851
(203) 847-9800
Major Market: Communications Equipment Manufacturing
Contacts:
Head of Sales: Jack Gaffney
Head of Engineering: Gladstone Young
Geographic Coverage: International
Year Established: 1976
Number of Employees: 250

DATA SYSTEMS OF BATON ROUGE
8939 Jefferson Highway
Baton Rouge, LA 70809
(504) 923-0886
Major Market: OEM (Computer Systems); Software House; Systems House (Commercial OEM); Dealer/Distributor
Target Industries: Distribution; Data Communications, Apartment Management
Target Applications: Data Communications
Net Sales: $500,000 - $1 Million (1981)
Geographic Coverage: International
Year Established: 1973
Number of Employees: 15

DATA TECHNOLOGY INDUSTRIES
701A Whitney St.
San Leandro, CA 94577
(415) 638-1206
Major Market: Computer Manufacturing, Software House; Systems House (Commercial OEM); Dealer/Distributor
Target Industries: Banking; OEM; Government
Target Applications: Accounting; WP; Forecasting
Contacts:
Head of Marketing: Keith Slipper
Head of Sales: Ted Baden
Head of Software: Jeff Clayton
Geographic Coverage: International
Year Established: 1979
Number of Employees: 30

DATA TECHNOLOGY INDUSTRIES
Software Division
701A Whitney St.
San Leandro, CA 94577
(415) 638-1206
Major Market: Computer Manufacturing; OEM (Computer Systems), Software House; Dealer/Distributor
Contacts:
Head of Marketing: Keith Slipper
Head of Sales: Ted Baden
Head of Software: Linda Neverez
Geographic Coverage: International
Year Established: 1976
Number of Employees: 60

DATABIT, INC.
110 Ricefield Lane
Hauppauge, NY 11788
(516) 435-4000
Major Market: Communications Equipment Manufacturing
Contacts:
Head of Marketing: Robert Olson
Head of Software: Hans Barta
Head of Engineering: Hank Segal
Geographic Coverage: International
Year Established: 1972
Number of Employees: 600

DATAGRAM CORP.
U.S. Division of Canadian Corp.
11 Main St.
E. Greenwich, RI 02818
(401) 885-4840
Target Industries: Data Communications
Contacts:
Head of Marketing: Tom McGovern
Head of Sales: Jean Thibault
Year Established: 1976
Number of Employees: 40

DATALEX CO.
Suite 408
650 5th St.
San Francisco, CA 94107
(415) 541-0780
Major Market: Software House
Target Industries: Fortune 1000
Net Sales: $100,000 - $500,000 (1981)
Contacts:
Head of Marketing: Mark Bernardi
Head of Software: Don Tibbetts
Head of Customer Service: Peter Schwalbyberg
Geographic Coverage: International
Year Established: 1978
Number of Employees: 10

DATAMARK SYSTEMS, INC.
220 N. 1300 W.
Pleasant Grove, UT 84062
(801) 785-5023
Major Market: OEM (Computer Systems); Software House
Contacts:
Head of Engineering: Grant Dearden
Geographic Coverage: International
Year Established: 1978
Number of Employees: 8

DATAPOINT CORP.
9725 Datapoint Dr.
San Antonio, TX 78284
(512) 699-7009
Major Market: Computer, Peripheral, Communications Equipment and Office Equipment Manufacturing
Target Industries: General Business, Scientific; Government
Target Applications: DDP; WP; OA; Electronic Message
Contacts:
Head of Marketing: David Ferrald
Head of Sales: David Holland
Head of Software: David Ruberg
Head of Engineering: Doris Bencalk
Head of Customer Service: John Hale
Geographic Coverage: International
Year Established: 1968
Number of Employees: 6,800

DATAPROBE, INC.
110 W. Palisades Blvd
Palisades Park, NJ 07650
(201) 947-8500
Major Market: Communications Equipment Manufacturing; Systems House (Commercial OEM);
Target Industries: Data Communications
Target Applications: Colorgraphics; Modem elimination; Switching Systems
Net Sales: $500,000 - $1 Million (1981)
Contacts:
Head of Engineering: Bob Kill
Geographic Coverage: International
Year Established: 1969
Number of Employees: 15

DATAPRODUCTS CORP.
6200 Canoga Ave
P.O. Box 746
Woodland Hills, CA 91365
(213) 887-8000
Major Market: Terminal, Peripheral and Communications Equipment Manufacturing, OEM (Peripherals-Terminals)
Contacts:
Head of Marketing: John Harker
Head of Sales: Jim Towell
Head of Engineering: Clifford Jones
Geographic Coverage: International
Year Established: 1962
Number of Employees: 4,600

DATAPRODUCTS NEW ENGLAND, INC.
Data Communications Division
Barnes Park N.
Wallingford, CT 06492
(203) 265-7151
Major Market: Terminal and Communications Equipment Manufacturing; OEM (Computer Systems), Software House
Target Industries: Military; Telephone; Insurance; Oil
Target Applications: Network Management; Encryption
Contacts:
Head of Marketing: J Flaherty
Head of Engineering: W Gallagher
Geographic Coverage: International
Year Established: 1951
Number of Employees: 700

DATASOFT, INC.
9421 Winnetka Ave.
Chatsworth, CA 91311
(213) 701-5161
Major Market: Software House
Target Industries: Consumer
Net Sales: $1 Million - $5 Million (1981)
Contacts:
Head of Marketing: Dennis Wallin
Head of Sales: Scott Llewellyn
Head of Software: Steve Bjork
Geographic Coverage: International
Year Established: 1980
Number of Employees: 35

DATASTREAM COMMUNICATION, INC.
2520 Mission College Blvd.
Santa Clara, CA 95050
(408) 986-8022
Major Market: Communications Equipment Manufacturing
Target Applications: IBM 3270 Cluster
Net Sales: $1 Million - $5 Million (1981)

Vendors

Contacts:
Head of Sales: Stanley G. Sartor
Geographic Coverage: International
Year Established: 1979
Number of Employees: 50

SATATEL, INC.
Pin Oak & Springdale
Cherry Hill Industrial Center
Cherry Hill, NJ 08003
(609) 424-4451
Major Market: Communications Equipment Manufacturing
Target Industries: Education
Contacts:
Head of Marketing: Tom Hornaby
Head of Engineering: Herb Baldwin
Year Established: 1979
Number of Employees: 35

SATEC, INC.
Suite 116
200 Eastowne Dr.
Chapel Hill, NC 27514
(919) 929-2135
Major Market: Communications Equipment Manufacturing
Contacts:
Head of Marketing: Albert M. Janks
Head of Sales: Ted Wise
Geographic Coverage: National
Year Established: 1976
Number of Employees: 65

SAYCOM SYSTEMS, INC.
217 Humboldt Court Dr.
Sunnyvale, CA 94086
(408) 734-4900
Major Market: Peripheral Manufacturing
Target Industries: Retail
Contacts:
Head of Marketing: Chuck Depew
Head of Sales: Donna Berry
Head of Software: Tim Lundeen
Head of Engineering: R. Apt
Geographic Coverage: International
Year Established: 1981
Number of Employees: 150

SAYCOM CORP.
2971 Bluefield Ave.
Dayton, OH 45414
(513) 278-7937
Major Market: Communications Equipment Manufacturing, OEM (Computer Systems)
Target Industries: Airlines
Target Applications: Information Display; Communications Systems
Contacts:
Head of Marketing: Jim Kausenberg
Head of Sales: Hans Hoogendoorn
Head of Engineering: Harold Hammelgran
Geographic Coverage: International
Year Established: 1946
Number of Employees: 100

SCA/TAC
Formerly Digital Communications & Technical Analysis
303 Research Dr.
Norcross, GA 30092
(404) 448-1400
Major Market: Communications Equipment Manufacturing
Target Industries: Time-Sharing; Education; OEM
Contacts:
Head of Marketing: James B. Lee III
Head of Engineering: Stan Lamberski
Geographic Coverage: International
Year Established: 1972
Number of Employees: 130

SEFARO SOFTWARE SYSTEMS, INC.
Suite 4
725 Fifth St.
Hermosa Beach, CA 90254
(213) 318-1661
Major Market: Software House; Systems House (Commercial OEM)
Target Industries: IBM Users
Net Sales: $100,000 - $500,000 (1982)
Contacts:
Head of Marketing: Leslie Borg
Head of Software: Julio DeFaro
Head of Engineering: Gary Abbott
Geographic Coverage: National
Year Established: 1977
Number of Employees: 9

SEI-TELEPRODUCTS, INC.
2126 Vineyard Ave.
Escondido, CA 92025
(619) 743-6344
Major Market: Communications Equipment Manufacturing; Data Services (Service Bureau)
Contacts:
Head of Marketing: Art Wallace
Head of Engineering: Greg Graham
Year Established: 1969
Number of Employees: 40

SELTA SYSTEMS, INC.
711 5th Ave. N.
Seattle, WA 98109
(206) 283-5500
Major Market: Component, Peripheral and Communications Equipment Manufacturing; Systems House (Commercial OEM); Data Services (Service Bureau)
Net Sales: $1 Million - $5 Million (1981)
Contacts:
Head of Sales: Scott Carey
Head of Software: Mark Chamberlain
Geographic Coverage: International
Year Established: 1971
Number of Employees: 25

THE SESTEK GROUP
830C E. Evelyn Ave.
Sunnyvale, CA 94086
(408) 737-7211
Major Market: Communications Equipment Manufacturing, Software House
Target Applications: Networking
Contacts:
Head of Marketing: Dennis Reiger
Geographic Coverage: International
Year Established: 1981
Number of Employees: 20

SEVELCON ELECTRONICS, INC.
4037 Swamp Road
Doylestown, PA 18901
(215) 348-1900
Major Market: Communications Equipment Manufacturing; Dealer/Distributor
Target Industries: Fortune 1000; Universities, Manufacturing, Government
Contacts:
Head of Marketing: Anthony Severino
Geographic Coverage: National
Year Established: 1973
Number of Employees: 35

SIGILOG, INC.
Network Control Division
1370 Welsh Road
Montgomeryville, PA 18936
(215) 628-4530
Major Market: Communications Equipment Manufacturing; OEM (Computer Systems)
Contacts:
Head of Marketing: Roy Gemberling
Head of Engineering: Thomas Emory
Head of Customer Service: Robert Armstrong
Geographic Coverage: International
Year Established: 1969
Number of Employees: 175

SIGITAL ASSOCIATES CORP.
1039 E. Main St.
Stamford, CT 06902
(203) 327-9210
Major Market: Communications Equipment Manufacturing; OEM (Peripherals-Terminals); Systems House (Commercial OEM); Remote-Line Printer Systems
Target Industries: Minicomputer; Banking, Education, End Users
Contacts:
Head of Marketing: Ed Thomas
Head of Sales: Simon Harvey
Head of Software: Wallace Ritchie
Geographic Coverage: National
Year Established: 1971
Number of Employees: 40

SIGITAL CONTROLS CORP.
2779 Orchard Run Road
Dayton, OH 45449
(513) 435-5455
Major Market: Communications Equipment Manufacturing; Dealer/Distributor; Peripheral Switching
Net Sales: $1 Million - $5 Million (1981)
Contacts:
Head of Marketing: Greg Collins
Head of Sales: Steven Lachey
Head of Engineering: Jon Lenahan
Geographic Coverage: International
Year Established: 1967
Number of Employees: 43

SIGITAL EQUIPMENT CORP.
146 Main St.
Maynard, MA 01754
(617) 897-5111
Major Market: Component, Computer, Terminal, Peripheral and Communications Equipment Manufacturing; Software House; Dealer/Distributor
Geographic Coverage: International
Year Established: 1957
Number of Employees: 75,000

SIGITAL LABORATORIES, INC.
600 Pleasant St.
Watertown, MA 02172
(617) 924-1680
Major Market: Peripheral and Communications Equipment Manufacturing
Target Applications: Communications
Net Sales: $500,000 - $1 Million (1981)
Contacts:
Head of Marketing: W. Kahn
Head of Sales: L. Call
Head of Software: W. Kahn
Head of Customer Service: P. Krawitz
Geographic Coverage: Regional
Year Established: 1971
Number of Employees: 12

SIGITAL MICROSYSTEMS, INC. (DMS)
1755 Embarcadero
Oakland, CA 94606
(415) 532-3686
Major Market: Computer Manufacturing
Target Industries: ISO; OEM; Fortune 1000
Target Applications: OA; MRP
Contacts:
Head of Marketing: Frank Wishom
Head of Engineering: Joseph Duvivier
Geographic Coverage: International
Number of Employees: 50

SILKS CO., INC.
195 Buckhorn Lane
Reston, VA 22091
(703) 471-4172
Major Market: OEM (Computer Systems), Software House; Systems House (Commercial OEM)
Target Industries: Aviation
Target Applications: Air-Traffic Control; Weather; Radar
Net Sales: $100,000 - $500,000 (1981)
Contacts:
Head of Marketing: Philip Mills
Geographic Coverage: Regional
Year Established: 1974
Number of Employees: 5

SIVELBISS CORP.
9776 Mt. Gilead Road
Fredericktown, OH 43019
(614) 694-9015
Major Market: OEM (Computer Systems); Software House, Systems House (Commercial OEM); Manufacturing test equipment
Target Industries: Engineering; Engineering
Target Applications: Testing Control Equipment; Machine Control; Telecommunication
Net Sales: $1 Million - $5 Million (1981)
Contacts:
Head of Marketing: Ralph Williams
Geographic Coverage: National
Year Established: 1974
Number of Employees: 25

SIVERSIFIED DATA RESOURCES, INC.
Suite 7
25 Mitchell Blvd.

San Rafael, CA 94903
(415) 499-8870
Major Market: Communications Equipment Manufacturing; Software House
Target Industries: IBM 360/370 Users
Contacts:
Head of Marketing: David Gortner
Geographic Coverage: National
Year Established: 1981
Number of Employees: 30

DATA GROUP
2020 Hogback Road
Ann Arbor, MI 48104
(313) 971-8234
Major Market: Software House
Target Industries: Telecommunications
Target Applications: Network Design
Contacts:
Head of Marketing: Mark Brown
Geographic Coverage: International
Year Established: 1971
Number of Employees: 100

DON'T ASK COMPUTER SOFTWARE
Suite S150
2265 Westwood Blvd.
Los Angeles, CA 90064
(213) 397-8811
Major Market: Software House
Target Industries: Apple, Atari Users
Target Applications: Recreation
Contacts:
Head of Marketing: Rachel Cohen
Geographic Coverage: International
Year Established: 1981
Number of Employees: 25

DURACOM CORP.
7300 N. Crescent Blvd.
Building 5
Pennsauken, NJ 08110
(609) 662-7272
Major Market: Communications Equipment Manufacturing
Target Industries: Manufacturing
Contacts:
Head of Marketing: J. E. Courtney
Geographic Coverage: National
Year Established: 1972
Number of Employees: 9

DUXBURY SYSTEMS, INC.
77 Great Road
Acton, MA 01720
(617) 263-7761
Major Market: OEM (Computer Systems), Software House; Systems House (Commercial OEM); Dealer/Distributor
Net Sales: $100,000 - $500,000 (1981)
Contacts:
Head of Marketing: Dana M. Winkates
Geographic Coverage: International
Year Established: 1975
Number of Employees: 5

DYNAMIC MICROPROCESSOR ASSOCIATES
Suite 602
545 5th Ave
New York, NY 10017
(212) 687-7119
Major Market: Software House
Target Industries: Utilities; Communications, Systems Houses
Target Applications: DBMS; Applications, Report Generators; Communications
Net Sales: $500,000 - $1 Million (1981)
Contacts:
Head of Software: Lee Rautenberg
Geographic Coverage: International
Year Established: 1979
Number of Employees: 9

DYNAMIC SCIENCES, INC.
7660 Gloria Ave
Van Nuys, CA 91406
(213) 782-0820
Major Market: Component and Communications Equipment Manufacturing; OEM (Computer Systems); Software House
Target Industries: EM; EMC; TamTest
Target Applications: Department of Defense, Industry
Contacts:
Head of Marketing: Daniel Donovan
Head of Sales: Jim Pyle
Head of Engineering: Jack Birdsall
Geographic Coverage: International
Year Established: 1972
Number of Employees: 160

DYNATECH DATA SYSTEMS
7644 Dynatech Court
Springfield, VA 22153
(703) 569-9000
Major Market: Communications Equipment Manufacturing
Target Industries: Banking; Transportation; Finance
Contacts:
Head of Marketing: V. K. Darnell
Head of Sales: Milton Coleman
Head of Software: Herbert Sharp
Head of Engineering: Nat Kumar
Head of Customer Service: Jack McIlroy
Geographic Coverage: International
Year Established: 1952
Number of Employees: 250

DYNATECH PACKET TECHNOLOGY, INC.
8484-G General Green Way
Alexandria, VA 22312
(703) 642-8391
Major Market: Communications Equipment Manufacturing; Data Communications Engineering
Target Industries: Banking; Finance; Transportation
Contacts:
Head of Marketing: K. L. Demanda
Head of Engineering: Jose Prats
Head of Customer Service: Jeff Ogle
Geographic Coverage: International
Year Established: 1980
Number of Employees: 55

EDGE TECHNOLOGY
2735 S.E. Raymond
Portland, OR 97202
(503) 231-1057
Major Market: Peripheral and Communications Equipment Manufacturing
Target Industries: Communications, OA
Target Applications: Credit Reporting
Net Sales: $1 Million - $5 Million (1981)
Geographic Coverage: International
Year Established: 1977
Number of Employees: 15

EFT COMPUTER SYSTEMS, INC.
One Parmley Place
Summit, NJ 07901
(212) 947-7771
Major Market: Software House
Target Industries: Banking
Target Applications: EFT
Net Sales: $500,000 - $1 Million (1981)
Contacts:
Head of Marketing: Garner R. Morgan
Geographic Coverage: Regional
Year Established: 1977
Number of Employees: 15

ELECTRODATA, INC.
23020 Miles Road
Bedford Heights, OH 44128
(216) 663-3333
Major Market: Communications Equipment Manufacturing
Target Industries: Data Communications
Net Sales: $1 Million - $5 Million (1981)
Contacts:
Head of Marketing: Philip Ardire
Head of Engineering: James Spoth
Geographic Coverage: International
Year Established: 1976
Number of Employees: 20

ELECTRONIC INTERFACE ASSOCIATES
39 E. 29th St.
New York, NY 10016
(212) 683-9100
Major Market: Communications Equipment Manufacturing; OEM (Computer Systems); Software House; Systems House (Commercial OEM); Data Services (Service Bureau); Dealer/Distributor
Target Industries: Banking; Publishing
Target Applications: Data Communications
Contacts:
Head of Sales: Hal Forman
Head of Engineering: Yasha Katz
Geographic Coverage: Regional
Year Established: 1977
Number of Employees: 19

ESTRIN SYSTEMS, INC.
123 Locust St.
Lancaster, PA 17602
(717) 291-1116
Major Market: Communications Equipment Manufacturing
Geographic Coverage: National
Year Established: 1978
Number of Employees: 31

EMULEX CORP.
3545 Harbor Blvd.
P.O Box 6725
Costa Mesa, CA 92626
(714) 662-5600
Major Market: Peripheral Manufacturing; Communications Equipment Manufacturing
Target Industries: End Users, OEM, System House
Contacts:
Head of Marketing: Sol Zechter
Head of Sales: Phillip G. Bagich
Head of Engineering: Bob Snyder
Geographic Coverage: International
Year Established: 1979
Number of Employees: 525

ENGINEERED SYSTEMS, INC.
Information Systems Division
14775 Grover St.
Omaha, NE 68144
(402) 333-0100
Major Market: Communications Equipment Manufacturing
Target Industries: End User; Banking, Credit Unions
Contacts:
Head of Marketing: W. H. Taylor
Head of Engineering: Gil Filan
Geographic Coverage: International
Year Established: 1969
Number of Employees: 50

ENVAX SYSTEMS, INC.
3330 Stovel
Irving, TX 75061
(214) 986-1151
Major Market: Communications Equipment Manufacturing
Contacts:
Head of Marketing: Jennifer Hammas
Head of Sales: Harry Rayner
Geographic Coverage: National
Year Established: 1969
Number of Employees: 50

ERICSON PROGMATIC, INC.
11211 Richmond Ave.
Houston, TX 77082
Major Market: Communications Equipment Manufacturing; OEM (Peripherals-Terminals)
Target Applications: Data Communications
Contacts:
Head of Marketing: Peter Walsh
Number of Employees: 95

EDCA CORP.
13010 Northup Way
Bellevue, WA 98005
(206) 885-5077
Major Market: Software House
Contacts:
Head of Marketing: Robin Padwork
Head of Sales: Morris Peterson
Head of Software: Edward Krzyzanowski
Geographic Coverage: International

EVANS, GRIFFITHS AND HART, INC.
50 Waltham St.
Lexington, MA 02173
(617) 861-0670
Major Market: Software House
Target Applications: Data Entry; DBMS
Contacts:
Head of Marketing: Tom Griffiths
Geographic Coverage: International

Vendors

Year Established: 1970
Number of Employees: 15

EVERGREEN CONSULTING, INC.
Suite 520
3407 W. Sixth St.
Los Angeles, CA 90020
(213) 662-3337
Major Market: Software House
Target Applications: IBM Communications Software
Net Sales: $500,000 - $1 Million (1981)
Geographic Coverage: National
Year Established: 1978
Number of Employees: 8

EXCELAN
2180 Fortune Dr.
San Jose, CA 95131
(408) 945-9526
Major Market: Communications Equipment Manufacturing
Target Industries: Systems Integrators
Contacts:
Head of Marketing: Dale Way
Head of Sales: Doug Planchon
Geographic Coverage: International
Year Established: 1982
Number of Employees: 40

EXEC SOFTWARE, INC.
201 Waltham St.
Lexington, MA 02173
(617) 862-3170
Major Market: Software House
Contacts:
Head of Sales: Jean Mayo
Year Established: 1981
Number of Employees: 8

EXXON ENTERPRISES
Exxon Office Systems Co.
777 Long Ridge Road
Stamford, CT 06902
(203) 329-5000
Major Market: Peripheral and Office Equipment Manufacturing
Target Applications: OA
Contacts:
Head of Marketing: Douglas V. Brunson
Head of Customer Service: Frank J. Bruscato
Geographic Coverage: International
Year Established: 1981
Number of Employees: 3,000

FALLON & ASSOCIATES, INC.
P.O. Box 1850
Upland, CA 91786
(714) 985-5088
Major Market: Software House; Data Services (Service Bureau)
Geographic Coverage: International
Year Established: 1969
Number of Employees: 3

FERDX MICROSYSTEMS, INC.
Suite 811
1701 N. Fort Meyer Dr.
Arlington, VA 22209
(703) 841-0800
Major Market: Software House
Target Applications: Financial Planning; Graphics; Data Communication
Net Sales: $500,000 - $1 Million (1981)
Contacts:
Head of Marketing/Sales: Richard Hykes
Head of Software: David Galland
Geographic Coverage: International
Year Established: 1979
Number of Employees: 25

FIBRONICS INTERNATIONAL, INC.
218 W. Main St.
Hyannis, MA 02601
(617) 778-0700
Major Market: Communications Equipment Manufacturing
Target Industries: Industrial; Financial, Health Care; Military
Target Applications: Data Transmission; Fiber Optics
Net Sales: $1 Million - $5 Million (1983)
Contacts:
Head of Marketing: J. Morris Weinberg
Head of Sales: Kenneth Bowes
Geographic Coverage: International
Year Established: 1977
Number of Employees: 106

FIRESIGN COMPUTER CO.
Suite 208
524 Union St.
San Francisco, CA 94133
(415) 398-7228
Major Market: Software House
Target Applications: Data Communications
Net Sales: $100,000 - $500,000 (1981)
Geographic Coverage: National
Year Established: 1975
Number of Employees: 3

FORMICAN, INC.
Suite 2610
Huntington Quadrangle
Melville, NY 11747
(516) 752-0032
Major Market: Communications Equipment Manufacturing; Software House; Systems House (Commercial OEM); Data Services (Service Bureau)
Target Industries: Oil Companies; Banks, International Organizations, Fortune 500
Target Applications: Networking; Conversion; Coexistence WP
Contacts:
Head of Marketing: Nigel Hall
Head of Customer Service: John Harvey
Year Established: 1981
Number of Employees: 5

FORMULA CONSULTANTS, INC.
P.O. Box 544
Anaheim, CA 92805
(714) 778-1738
Major Market: Software House
Contacts:
Head of Software: Tony J. Sapienza
Head of Engineering: Fritz Lorenz
Geographic Coverage: International
Year Established: 1978
Number of Employees: 22

FRIEDMAN ASSOCIATES
2424 Morris Ave.
Union, NJ 07083
(201) 964-2900
Major Market: Communications Equipment Manufacturing, Dealer/Distributor
Year Established: 1964
Number of Employees: 8

FUJITSU AMERICA, INC.
2975 Oakmead Village Dr.
Santa Clara, CA 95051
(408) 727-4360
Major Market: Peripheral and Communications Equipment Manufacturing, Office Equipment Manufacturing; Dealer/Distributor
Target Industries: OEM
Contacts:
Head of Marketing: Norm Peterson
Head of Software: Fred Ihler
Head of Engineering: Ken Katashiba
Geographic Coverage: International
Year Established: 1976
Number of Employees: 300

G & G ENGINEERING
1922 Republic Ave.
San Leandro, CA 94577
(415) 895-0796
Major Market: Software House; Systems House (Commercial OEM)
Contacts:
Head of Marketing: Michael Gifford
Head of Software: Dale Gift
Head of Engineering: Gerald Houston
Geographic Coverage: National
Year Established: 1980
Number of Employees: 25

GAMMA TECHNOLOGY, INC.
2452 Embarcadero Way
Palo Alto, CA 94303
(415) 856-7421
Major Market: Software House
Target Applications: Data Communication
Net Sales: $100,000 - $500,000 (1981)
Geographic Coverage: International
Year Established: 1974
Number of Employees: 4

GANDALF DATA, INC.

1019 S. Noel Ave.
Wheeling, IL 60090
(312) 541-6060
Major Market: Communications Equipment Manufacturing
Target Industries: Common Carriers, Government; Industries, Education
Target Applications: DP; Data Entry; OA; Communications Networking
Contacts:
Head of Marketing: Verne Zugenbuhler
Head of Engineering: Jan Bartl
Geographic Coverage: International
Year Established: 1973
Number of Employees: 325

GATEWAY COMMUNICATIONS, INC.
16782 Red Hill
Irvine, CA 92714
(714) 261-0762
Major Market: Computer Manufacturing; Communications Equipment Manufacturing, Office Equipment Manufacturing, Software House; Systems House (Commercial OEM)
Target Applications: Resource Sharing; X.25 PADS, SNA/3270 Emulation
Contacts:
Head of Marketing: Larry Stevenson
Year Established: 1981
Number of Employees: 18

GAYLORD BROS., INC.
P.O. Box 4901
Syracuse, NY 13221
(315) 457-5070
Major Market: Software House; Dealer/Distributor
Target Industries: Library; Education
Contacts:
Head of Engineering: Jim Qokoupil
Head of Customer Service: Peggy Trinca
Geographic Coverage: International
Number of Employees: 300

GEJAC, INC.
P.O. Box 186
Riverdale, MD 20737
(301) 864-3700
Major Market: Software House
Net Sales: $100,000 - $500,000 (1981)
Contacts:
Head of Marketing: Susan Kajchstein
Geographic Coverage: International
Year Established: 1977
Number of Employees: 10

GENASYS CORP.
11820 Parklawn Dr.
Rockville, MD 20852
(301) 770-4800
Major Market: Software House
Target Industries: Government
Target Applications: Accounting; Facilities Management
Contacts:
Head of Marketing: Ronald Hussy
Geographic Coverage: National
Year Established: 1968
Number of Employees: 150

GENERAL DATACOMM INDUSTRIES, INC.

One Kennedy Ave.
Danbury, CT 06810
(203) 797-0711
Major Market: Communications Equipment Manufacturing
Target Industries: Fortune 1000; Telephone; International Record Carriers, International Development
Target Applications: Network Diagnostics, Data Communications, Modem and Mux Systems
Contacts:
Head of Marketing: Hugh Tremblay
Head of Sales: Robert F. Hendee
Head of Engineering: W. Raymond
Geographic Coverage: International
Year Established: 1969

GENERAL DIGITAL INDUSTRIES, INC.
7702 Governors Dr.
Huntsville, AL 35805
(205) 837-8305
Major Market: Component, Computer and Terminal Manufacturing; OEM (Computer Systems); Software House; Systems House (Commercial OEM)
Target Industries: Manufacturing; System House; Software Development Firms, OEM
Net Sales: $1 Million - $5 Million (1982)
Contacts:
Head of Marketing: Lyle Needham
Head of Software: John D.Reynolds
Geographic Coverage: National
Year Established: 1978
Number of Employees: 40

GENERAL ELECTRIC CO.
One River Road
Schenectady, NY 12345
(518) 385-2211
Major Market: Component, Terminal, Peripheral and Communications Equipment Manufacturing; OEM (Computer Systems), Software House; Data Services (Service Bureau)
Target Applications: Factory Automation; CAD/CAM
Net Sales: $100,000 - $500,000 (1981)
Contacts:
Head of Marketing: Thomas O. Thorsen
Geographic Coverage: International
Year Established: 1892
Number of Employees: 404,000

GENERAL ELECTRIC INFORMATION SERVICES CO.
401 N Washington St.
Rockville, MD 20850
(301) 340-4000
Major Market: Software House; Data Services (Service Bureau)
Geographic Coverage: International
Year Established: 1964
Number of Employees: 5,000

GENICOMP, INC.
9 Algonquin St.
Canton, MA 02021
(617) 828-2008
Major Market: Communications Equipment Manufacturing
Target Industries: OEM; Dealers
Year Established: 1978

GEORGE W. HALLAHAN & CO., INC.
1660 Soldiers Field Road
Boston, MA 02135
(617) 782-6100
Major Market: Software House; Data Services (Service Bureau)
Target Industries: Distribution; Clubs
Target Applications: Communications
Contacts:
Head of Marketing: Art Greenberg
Geographic Coverage: National
Year Established: 1979
Number of Employees: 12

GLASGAL COMMUNICATIONS, INC.
207 Washington St.
Northvale, NJ 07647
(201) 768-8082
Major Market: Dealer/Distributor
Contacts:
Head of Customer Service: Ken Growney
Year Established: 1973
Number of Employees: 30

GLENAYRE ELECTRONICS
1551 Columbia St.
North Vancouver
(206) 676-1660
Major Market: Communications Equipment Manufacturing
Contacts:
Head of Marketing: John McDermott
Head of Sales: Mike Hodson
Head of Engineering: Roy Smyth
Geographic Coverage: International
Year Established: 1947
Number of Employees: 180

GLENN A. SARBER AND ASSOCIATES
Suite 304
15010 Ventura Blvd.
Sherman Oaks, CA 91403
(213) 907-8622
Major Market: Software House
Target Industries: OEM
Net Sales: $1 Million - $5 Million (1982)
Contacts:
Head of Marketing: Gary Cline
Geographic Coverage: International
Year Established: 1980
Number of Employees: 25

GOULD, INC.
SEL Computer Systems
6901 West Sunrise Blvd.
Fort Lauderdale, FL 33313
(305) 587-2900
Major Market: Computer Manufacturing, OEM (Peripherals-Terminals); Software House
Target Industries: Aerospace; Military; Nuclear; Fossil Fuel
Target Applications: Flight Simulation; Energy Monitoring/Control; Lab Computation; Factory Automation
Contacts:
Head of Marketing: John Mutzko
Head of Sales: Calvin Shoemaker;
Head of Software: Robert Bergmann
Head of Engineering: Michael Smith
Head of Customer Service: Edward Shepherd
Geographic Coverage: International
Year Established: 1961
Number of Employees: 2,500

GOULD, INC.
Programmable Controller Division
P.O. Box 3083
Andover, MA 01810
(617) 475-4700
Major Market: Peripheral and Communications Equipment Manufacturing; Programable Controllers
Target Industries: Manufacturing; **Target Applications:** Factory Automation; Process Control
Contacts:
Head of Marketing: Steven Mader
Head of Sales: George Dannaker
Head of Engineering: John J. Joslyn
Head of Customer Service: Richard Balmas
Geographic Coverage: International
Year Established: 1969
Number of Employees: 1,600

GRANADA SYSTEMS DESIGN, INC.
303 Fifth Ave.
New York, NY 10016
(212) 686-8945
Major Market: OEM (Computer Systems); Software House, Systems House (Commercial OEM)
Target Industries: Banking; Distribution; Textile
Target Applications: Billing; Banking; WP; Voice Response
Net Sales: $100,000 - $500,000 (1981)
Contacts:
Head of Marketing: Gulab Bhavnani
Head of Software: Robert Acker
Geographic Coverage: National
Year Established: 1979
Number of Employees: 8

GRAPHIC SOFTWARE SYSTEMS
25117 S.W. Pkwy
Wilsonville, OR 97070
(503) 682-1606
Major Market: Software House
Target Industries: Business
Contacts:
Head of Sales: Jon Gordon
Head of Engineering: Russ Sprunger
Geographic Coverage: International
Year Established: 1981
Number of Employees: 12

GTE BUSINESS COMMUNICATIONS SYSTEMS, INC.
12502 Sunrise Valley Dr.
Reston, VA 22096
(703) 435-7400
Major Market: Communications Equipment Manufacturing; Dealer/Distributor
Target Industries: Business; Institutions; Government
Contacts:
Head of Marketing: Paul Weider
Head of Sales: Bob Smith
Head of Engineering: Tom Monaghan
Geographic Coverage: International
Year Established: 1978
Number of Employees: 5,000

GTE TELENET COMMUNICATIONS CORP.
8229 Boone Blvd.
Vienna, VA 22180
(703) 442-1000
Major Market: Communications Equipment Manufacturing; Communications Networks
Target Industries: Banking, Transportation, Communications
Contacts:
Head of Marketing: W. Comes
Head of Sales: Henry R. Nothhaft
Head of Software: Paolo Guidi
Geographic Coverage: International
Year Established: 1972
Number of Employees: 900

GTECH CORP.
101 Dyer St.
Providence, RI 02903
(401) 273-7700
Major Market: Terminal and Communications Equipment Manufacturing, OEM (Computer Systems); OEM (Peripherals-Terminals)
Contacts:
Head of Marketing: Peter Morrissey
Head of Sales: George Murray
Head of Software: Alex Burstein
Head of Engineering: William Metzger
Geographic Coverage: International
Year Established: 1981
Number of Employees: 200

GUILD, INC.
590 Danbury Road
Ridgefield, CT 06877
(203) 431-0411
Major Market: Software House
Target Applications: Prototyping
Net Sales: $100,000 - $500,000 (1982)
Geographic Coverage: National
Year Established: 1979
Number of Employees: 12

GUNN ENTERPRISES, INC.
Suite 150
5615 Richmond
P.O. Box 27474-77227
Houston, TX 77057
(713) 781-6911
Major Market: Software House; Systems House (Commercial OEM); Dealer/Distributor
Target Industries: Professional
Target Applications: WP; Data Base
Net Sales: $100,000 - $500,000 (1982)
Geographic Coverage: International
Year Established: 1979
Number of Employees: 5

H & A COMPUTER SYSTEMS
Suite 204
30 Hotaling Place
San Francisco, CA 94111
(415) 434-3517
Major Market: Software House; Dealer/Distributor
Target Applications: Application Generation; System Software
Net Sales: $1 Million - $5 Million (1982)
Contacts:
Head of Marketing: Kathleen Reilly
Head of Software: Nick Nickerson
Geographic Coverage: National
Year Established: 1978
Number of Employees: 22

HALCYON COMMUNICATIONS
Data Systems Division
2121 Zanker Road
San Jose, CA 95131
(408) 293-5970
Major Market: Communications Equipment Manufacturing
Target Industries: Banking

Vendors

Target Applications: Analog
Contacts:
Head of Marketing: Stan Guzik
Head of Sales: Erv Stein
Head of Engineering: Park Adams
Geographic Coverage: International
Year Established: 1971
Number of Employees: 250

HARRIS CORP.
Information Systems Group
1025 W. Nasa Blvd.
Melbourne, FL 32919
(305) 727-9100
Major Market: Computer, Teminal and Communications Equipment Manufacturing; Software House; Special Systems Manufacturing
Target Industries: Manufacturing; Scientific; Government; Education
Target Applications: Office Systems, Scientific; Control; Engineering
Geographic Coverage: International
Number of Employees: 5,000

HARRIS CORP.
Computer Systems Division
2101 West Cyprus Creek Road
Ft. Lauderdale, FL 33309
(305) 974-1700
Major Market: Computer, Peripheral and Communications Equipment Manufacturing; OEM (Computer Systems); Software House; Systems House (Commercial OEM); Data Services (Service Bureau); Special Systems
Target Industries: Engineering Technology; Aerospace; Scientific Research; OA
Target Applications: Data Acquisition; CAD/CAM; Data Reduction; Design and Simulation
Contacts:
Head of Marketing: James Oyler
Head of Sales: J. Cromarar
Head of Software: Joe Payne
Geographic Coverage: International
Year Established: 1971
Number of Employees: 1,000

HARRIS CORP.
Digital Telephone Systems Division
One Digital Dr.
P.O. Box 1188
Novato, CA 94948
(415) 472-2500
Major Market: Communications Equipment Manufacturing
Target Industries: Business Telephone System; Private Networks
Contacts:
Head of Marketing: Edward Burfine
Head of Sales: Vincent Cahill
Head of Engineering: Alan Negrin
Head of Customer Service: Terry Yelitz
Geographic Coverage: International
Year Established: 1968
Number of Employees: 700

HAYES MICROCOMPUTER PRODUCTS, INC.
5923 Peachtree Industrial Blvd.
Norcross, GA 30092
(404) 449-8791
Major Market: Communications Equipment Manufacturing, OEM (Peripherals-Terminals)
Target Industries: Retail Computer Store
Contacts:
Head of Marketing: Dana S. Perkins
Head of Sales: Don Huizingh
Head of Software: Dan McCutcheon
Head of Engineering: William Hankins
Geographic Coverage: National
Year Established: 1978
Number of Employees: 200

HEURIKON DATA SYSTEMS
12189 Ralston St.
Arvada, CO 80004
(303) 425-9303
Major Market: Communications Equipment Manufacturing
Target Industries: Modem Office
Target Applications: Communications with TWX and Telex
Contacts:
Head of Marketing/Sales: Jack Freeman
Head of Software: Bill Richard
Year Established: 1980
Number of Employees: 62

HEXSON SYSTEMS, INC.
427 South Olathe Way
Aurora, CA 80013
(303) 690-6279
Major Market: Software House
Contacts:
Head of Marketing: D. Hanson
Year Established: 1980
Number of Employees: 3

HEURIKON CORP.
3001 Latham Dr.
Madison, WI 53713
(608) 271-8700
Major Market: Component, Computer and Communications Equipment Manufacturing, OEM (Computer Systems); Systems House (Commercial OEM)
Target Industries: Communications; Manufacturing; OEM
Target Applications: Software Developers
Net Sales: $1 Million — $5 Million (1981)
Contacts:
Head of Marketing: Christopher M. Priebe
Head of Engineering: Jeffrey Maltox
Head of Customer Service: Bob May
Geographic Coverage: National
Year Established: 1972
Number of Employees: 55

HITACHI AMERICA, LTD.
2990 Gateway Dr.
Norcross, GA 30071
(404) 458-8921
Major Market: Component, Computer and Communications Equipment Manufacturing
Target Industries: Telephone; Commercial; Lodging
Contacts:
Head of Marketing: E. Kondo
Head of Sales: Charles Kenmore
Head of Software: Rick White
Head of Engineering: Wally Ives
Head of Customer Service: Bill Garraty
Geographic Coverage: International
Year Established: 1973
Number of Employees: 80

HONEYWELL, INC.
Information Systems
Honeywell Plaza
Minneapolis, MN 55408
(612) 870-5200
Major Market: Computer, Terminal, Peripheral, Communications Equipment and Office Equipment Manufacturing, OEM (Computer Systems); OEM (Peripherals-Terminals); Software House; Data Services (Service Bureau); Dealer/Distributor; Special Hardware
Target Industries: Manufacturing/Distribution; Government; Education; Airline
Contacts:
Head of Marketing: George S. Drewett
Geographic Coverage: International
Year Established: 1955
Number of Employees: 25,000

HORNE COMPUTER SERVICES
3822 N. 25th St.
St. Joseph, MI 64505
(816) 233-5419
Major Market: Software House; Systems House (Commercial OEM)
Target Industries: Insurance; Financial
Target Applications: Letter Writing; WP; Data Entry; Insurance
Net Sales: $1 Million — $5 Million (1982)
Geographic Coverage: Regional
Year Established: 1977
Number of Employees: 4

HOUSTON COMPUTER SERVICES, INC.
Suite 101
1221 Richmond
Building C
Houston, TX 77082
(713) 558-9900
Major Market: Software House
Target Applications: Language Processors
Net Sales: $500,000 - $1 Million (1981)
Contacts:
Head of Software: Stephen Starke
Geographic Coverage: National
Year Established: 1979
Number of Employees: 9

HOUSTON ENGINEERING RESEARCH CORP.
P O. Box 3246
7250 Wynnwood Dr
Houston, TX 77001
(713) 869-9371
Major Market: Computer Manufacturing; OEM (Computer Systems); OEM (Peripherals-Terminals); Software House; Systems House (Commercial OEM)
Target Industries: Chemical; Paper; Utilities
Target Applications: Scada; Tank Gauging; Auto Production Reporting
Net Sales: $1 Million — $5 Million (1981)
Contacts:
Head of Sales: John A. Chapman
Head of Engineering: Joseph Dryer
Head of Customer Service: John A. Chapman
Geographic Coverage: International
Year Established: 1980
Number of Employees: 50

HOWARD W. SAMS & CO., INC.
4300 W. 62nd St.
Indianapolis, IN 46206
(317) 298-5400
Major Market: Software House
Target Industries: Small Business
Net Sales: $1 Million — $5 Million (1981)
Contacts:
Head of Marketing: Kenneth Jones
Geographic Coverage: International
Year Established: 1980
Number of Employees: 600

HOWE SOFTWARE
14 Lexington Road
New City, NY 10956
(914) 634-1821
Major Market: Software House
Target Applications: TRS-80 Machine Language Utilities
Net Sales: Less than $100,000 (1981)
Geographic Coverage: International
Year Established: 1979
Number of Employees: 2

HUNTER & READY, INC.
445 Sherman Ave.
Palo Alto, CA 94306
(415) 326-2950
Major Market: Software House; Dealer/Distributor
Target Industries: Industrial; Avionics; Hermetics; Military
Contacts:
Head of Marketing: James Ready
Geographic Coverage: International
Year Established: 1981
Number of Employees: 20

I P C TECHNOLOGY, LTD.
7336 Winthrop Road
Chester, CT 06412
(203) 526-9574
Major Market: Communications Equipment Manufacturing
Contacts:
Head of Sales: Jerry Confar
Head of Engineering: Lawrence Timmerman
Year Established: 1974
Number of Employees: 700

IAS CORP.
Mason Road No. 2
West Willington, CT 06279
(203) 429-1881
Major Market: Software House
Contacts:
Head of Marketing: Frank Winchell
Head of Sales: Rob Sibley
Year Established: 1982
Number of Employees: 4

IBM CORP.
Communications Products
44 S. Broadway
White Plains, NY 10601
(914) 696-1600
Major Market: Terminal,

Communications Equipment and Office Equipment Manufacturing

ICOT CORP.
830 Maude Ave.
Mountain View, CA 94043
(415) 964-4635
Major Market: Peripheral and Communications Equipment Manufacturing
Target Industries: Finance; Airlines
Contacts:
Head of Marketing: Joe Becker
Head of Sales: Bill Noonberg
Head of Customer Service: Peter Hepburn
Geographic Coverage: International
Year Established: 1968
Number of Employees: 250

IDE ASSOCIATES, INC.
7 Oak Park Dr.
Bedford, MA 01730
(617) 275-4430
Major Market: Peripheral, Communications Equipment Manufacturing
Contacts:
Head of Marketing: Nora Feldman
Head of Sales: Jim Bender
Head of Software: Nigel Watkins
Head of Engineering: David Hunter
Geographic Coverage: International
Year Established: 1982
Number of Employees: 25

IDEAS, INC.
10759 Tucker St.
Beltsville, MD 20705
(301) 937-3600
Major Market: Component, Computer, Peripheral, Communications Equipment and Office Equipment Manufacturing; OEM (Computer Systems), OEM (Peripherals-Terminals); Software House; Systems House (Commercial OEM); Dealer/Distributor; Training Simulators
Target Industries: Government; Hospitals, Military
Target Applications: LAN; Communications, Remote Sensing
Contacts:
Head of Marketing: Barbara Duffy
Head of Sales: Rod Matheson
Head of Engineering: Dale Barrick
Geographic Coverage: International
Year Established: 1970
Number of Employees: 300

IDEOGRAPHIX, INC.
532 Mercury Dr.
Sunnyvale, CA 94086
(408) 739-1290
Major Market: Computer, Terminal, Peripheral and Communications Equipment Manufacturing, OEM (Computer Systems); OEM (Peripherals-Terminals); Systems House (Commercial OEM), Data Services (Service Bureau)
Target Industries: Chinese DP; Chinese Communication Systems
Target Applications: Chinese Data Entry; Chinese Telex
Net Sales: $1 Million — $5 Million (1981)
Contacts:
Head of Marketing: G. K. Yeh
Head of Sales: Eric Wang
Head of Software: David Chang
Head of Engineering: Chen A. Yeh
Head of Customer Service: George Tsai
Geographic Coverage: Far East
Year Established: 1972
Number of Employees: 55

IE SYSTEMS, INC.
P.O. Box 359
98 Main St.
Newmarket, NH 03857
(603) 659-5891
Major Market: Software House
Target Industries: OEM
Target Applications: Communications
Contacts:
Head of Marketing: Susan Currier
Geographic Coverage: International
Year Established: 1981
Number of Employees: 17

ILENE INDUSTRIES DATA SYSTEMS, INC.
301 Stanley Blvd.
Shelbyville, TN 37160
(615) 684-8731
Major Market: Computer, Communications Equipment Manufacturing
Target Industries: Education
Target Applications: Time-sharing; Real-time
Contacts:
Head of Sales: John C. Smith
Head of Software: Raymond Nix
Head of Engineering: Donald J. Friedman
Head of Customer Service: Rick Chambless
Geographic Coverage: National
Year Established: 1981
Number of Employees: 15

INDUSTRIAL COMPUTER CORP.
Suite 1D
6810 Roswell Road
Atlanta, GA 30328
(404) 396-9395
Major Market: Software House
Contacts:
Head of Marketing: Mike Wells
Head of Sales: Nancy Boyde
Head of Software: Bill Massore
Geographic Coverage: International
Year Established: 1980
Number of Employees: 10

INFINET, INC.
Formerly Interlet, Inc.
8 Shattuck Road
Andover, MA 01810
(617) 681-0800
Major Market: Communications Equipment Manufacturing
Target Applications: Network Control
Contacts:
Head of Marketing: C. David Hetrick
Head of Sales: Dick Murtland
Head of Engineering: E. Cuddy
Head of Customer Service: Greg Sheard
Geographic Coverage: International
Year Established: 1969
Number of Employees: 450

INFOLINK
1925 Holste Road
Northbrook, IL 60062
(312) 291-2900
Major Market: Component, Terminal and Communications Equipment Manufacturing, Systems House (Commercial OEM)
Target Industries: Manufacturing; Financial
Target Applications: Factory Data Collection, Computer Voice Response
Contacts:
Head of Marketing: Paul Green
Head of Engineering: Jim Lysaught
Geographic Coverage: International
Year Established: 1976
Number of Employees: 80

INFOSIENCE CORP.
Suite 275
801 Traeger Ave
San Bruno, CA 94066
(415) 952-4487
Major Market: Software House; Data Services (Service Bureau)
Target Industries: Construction; Engineering; Utilities, Petroleum
Contacts:
Head of Marketing: Frank Mashburn
Head of Sales: Ruth E. Smith
Head of Software: Dr. Mel Pirtle
Geographic Coverage: International
Year Established: 1976
Number of Employees: 25

INFORMATION CONCEPTS, INC.
P.O. Box 19858
Dallas, TX 75218
(214) 324-2635
Major Market: Software House; Dealer/Distributor
Net Sales: $500,000 - $1 Million (1981)
Contacts:
Head of Marketing: Garry Goodwin
Head of Engineering: K. Messna
Geographic Coverage: International
Year Established: 1979
Number of Employees: 3

INFORMATION DEVICES CORP.
3205 Coronado Dr.
Santa Clara, CA 95051
(408) 727-4347
Major Market: Terminal, Peripheral and Communications Equipment Manufacturing, OEM (Peripherals-Terminals); Systems House (Commercial OEM); Dealer/Distributor
Target Industries: Engineering; Electronics Manufacturing; Scientific; Commercial
Target Applications: Structures, CAD/CAM, Earth Sciences
Contacts:
Head of Marketing/Sales: Tom Melby
Head of Software/Engineering: Irv Marriott
Geographic Coverage: National
Year Established: 1981
Number of Employees: 15

INFORMATION DYNAMICS CORP.
1251 Exchange St.
Richardson, TX 75081
(214) 783-8080
Major Market: Communications Equipment Manufacturing
Contacts:
Head of Marketing: Charles Friedman
Geographic Coverage: National
Number of Employees: 5

INFORMATION MANAGEMENT TECHNOLOGIES
180 N. Michigan Ave.
Chicago, IL 60601
(312) 372-4222
Major Market: Software House; Systems House (Commercial OEM)
Target Industries: Banking, Manufacturing
Target Applications: Financial; DBMS - Manufacturing; Cash Management; Message Store
Contacts:
Head of Marketing: David Kaczmarek
Geographic Coverage: National
Year Established: 1974
Number of Employees: 80

THE INFORMATION ORGANIZATION CORP.
Suite 308
2295 Vallejo St.
San Francisco, CA 94123
(415) 921-3798
Major Market: Software House, Data Services (Service Bureau)
Target Industries: Legal, Banking
Target Applications: WP
Net Sales: $100,000 — $500,000 (1981)
Geographic Coverage: National
Year Established: 1979
Number of Employees: 2

INFOSERVICES, INC.
1728 Montreal Circle
Suite 22
Tucker, GA 30084
(404) 938-9960
Major Market: Software House; Systems House (Commercial OEM); Data Services (Service Bureau)
Target Industries: Finance
Target Applications: Financial, Income Tax Returns
Net Sales: $1 Million — $5 Million (1981)
Contacts:
Head of Marketing: Bob Westerman
Head of Engineering: Craig Engle
Geographic Coverage: Regional
Year Established: 1969
Number of Employees: 17

INFOSOFT SYSTEMS, INC.
P.O. Box 640
80 Washington St.
Norwalk, CT 06856
(203) 866-8833
Major Market: Software House
Net Sales: $500,000 - $1 Million (1982)
Contacts:
Head of Marketing: Holly Lapinski
Head of Sales: Jerrold H. Coret

Vendors

Head of Software: Richard L. Roth
Head of Customer Service: Peggy Hartley
Geographic Coverage: International
Year Established: 1979
Number of Employees: 10

INFOTRON SYSTEMS CORP.
9 North Olney
Cherry Hill Industrial Center
Cherry Hill, NJ 08003
(609) 424-9400
Major Market: Communications Equipment Manufacturing
Target Applications: Networking Systems (LAN); Data PBX; Network Control Management
Contacts:
Head of Marketing: Jeffrey Krasngal
Head of Sales: Thomas Alexander
Head of Engineering: Joseph O'Neill
Head of Customer Service: Richard T. Mueller
Geographic Coverage: International
Year Established: 1968
Number of Employees: 710

INNOVATEK MICROSYSTEMS, INC.
Smithfield Road
Millerton, NY 12546
(914) 373-9003
Major Market: Componsht and Communications Equipment Manufacturing; Software House; Systems House (Commercial OEM)
Target Industries: Manufacturing; Military
Target Applications: Process Control
Net Sales: $100,000 — $500,000 (1981)
Contacts:
Head of Marketing: David Sherman
Head of Sales: Paul Fitts
Head of Software: Whaden N. Curtis
Geographic Coverage: Regional
Year Established: 1968
Number of Employees: 8

INNOVATIVE ELECTRONICS, INC.
4714 N. W. 165 St.
Miami, FL 33014
(305) 624-1844
Major Market: Peripheral and Communications Equipment Manufacturing
Target Industries: Cross Industry
Net Sales: $1 Million — $5 Million (1983)
Contacts:
Head of Marketing: Shelly Dolan
Head of Sales: Diane Ruggiero
Head of Engineering: Matt Inthar
Head of Customer Service: Ken Majersky
Geographic Coverage: National
Year Established: 1977
Number of Employees: 28

INTECOM, INC.
601 InteCom Dr.
Allen, TX 75002
(214) 727-9141
Major Market: Communications Equipment Manufacturing
Target Industries: Corporations; Universities, Hospitals, Resale; Shared Tenant
Target Applications: LAN; Integrated Voice/Data, Voice Messaging; Protocol and Format Conversion
Contacts:
Head of Marketing/Sales: Tom Aschenbrenner
Head of Engineering: Thomas Cannon
Head of Customer Service: Bob Stewart
Geographic Coverage: National
Year Established: 1979
Number of Employees: 1,000

INTEGRATED DESIGN ENGINEERING, INC.
P.O. Box 16307
St. Louis, MO 63125
(314) 343-0005
Major Market: Peripheral and Communications Equipment Manufacturing; OEM (Peripherals-Terminals); Software House
Target Industries: NCR Market
Net Sales: $500,000 - $1 Million (1982)
Contacts:
Head of Marketing/Engineering: Bill Yakstis
Head of Customer Service: Steve Wolfangel
Geographic Coverage: International
Year Established: 1979
Number of Employees: 10

INTELLIGENT BUSINESS SYSTEMS, INC.
1500 Ocean Ave.
Bohemia, NY 11719
(516) 567-1800
Major Market: Computer and Communications Equipment Manufacturing
Target Industries: Record Carriers; Data/Telex
Contacts:
Head of Marketing: Malcolm Nagle
Head of Software: Barry Muirhead
Head of Engineering: Eric Schwartz
Geographic Coverage: International
Year Established: 1981
Number of Employees: 35

INTELLIGENT TECHNOLOGIES INTERNATIONAL CORP.
151 University Ave.
Palo Alto, CA 94301
(415) 328-2411
Major Market: Component and Communications Equipment Manufacturing; Software House, Systems House (Commercial OEM)
Contacts:
Head of Marketing: Verlaine Crawford
Head of Sales: David Vogel
Head of Customer Service: Sharon Keefe
Geographic Coverage: International
Year Established: 1982
Number of Employees: 15

INTERACTIVE SYSTEMS/3M
Business Communication Products
3920 Varsity Dr.
Ann Arbor, MI 48104
(313) 973-1500
Major Market: Communications Equipment Manufacturing
Target Industries: Manufacturing; Education; Financial; Government
Target Applications: LAN
Contacts:
Head of Marketing: Dan Gahlon
Head of Sales: John Huber
Head of Software: Bob Wolters
Head of Engineering: Brian Hackett
Geographic Coverage: International
Year Established: 1968
Number of Employees: 110

INTERBUSINESS CORP.
Incomm
Suite E
115 N. Wolf Road
Wheeling, IL 60090
(312) 459-8888
Major Market: Component Manufacturing; Peripheral Manufacturing; Communications Equipment Manufacturing; Dealer/Distributor
Target Applications: Data Communication
Contacts:
Head of Marketing: Mike Toumayan
Head of Engineering: John Todaro
Head of Customer Service: John Baldin
Geographic Coverage: National
Year Established: 1981
Number of Employees: 41

INTERCOM RESEARCH CORP.
Suite 14
2603 Artie St.
Huntsville, AL 35805
(205) 536-6686
Major Market: Communications Equipment Manufacturing; Dealer/Distributor
Target Industries: Government; Aerospace, Nuclear; Insurance
Contacts:
Head of Marketing/Sales: C. Lyndon Martin
Head of Engineering: Roy Phillips
Geographic Coverage: Regional
Year Established: 1977
Number of Employees: 10

INTERCONNECT PLANNING CORP.
Wall St. Plaza
New York, NY 10005
(212) 825-9060
Major Market: Communications Equipment Manufacturing
Target Industries: Banking; Stock Brokerage; Insurance
Target Applications: Trading
Contacts:
Head of Marketing: Edward F. McGrath
Head of Engineering: Harry Bergen
Head of Customer Service: Aceta Hannson
Geographic Coverage: International
Year Established: 1974
Number of Employees: 450

INTERFACE ELECTRONICS, INC.
21134 Bridge St.
Southfield, MI 48034
(313) 352-8620
Major Market: Communications Equipment Manufacturing; Software House; Systems House (Commercial OEM); Dealer/Distributor
Net Sales: $500,000 - $1 Million (1981)
Contacts:
Head of Marketing: Ketan Bakshi
Head of Software: Sunil Shah
Head of Engineering: Alan Berman
Geographic Coverage: National
Year Established: 1974
Number of Employees: 20

INTERLAN, INC.
3 Liberty Way
Westford, MA 01886
(617) 692-3900
Major Market: Component, Peripheral and Communications Equipment Manufacturing; Software House, Data Service (Service Bureau)
Target Industries: OEM, Computer Companies
Target Applications: CAD/CAM; Automatic Testing; R&D
Contacts:
Head of Marketing: Jerry Wessel
Head of Sales: George Symuta
Head of Engineering: Ray Moore
Geographic Coverage: International
Year Established: 1981
Number of Employees: 100

INTER-LINK
Suite 1
580 Weddell Dr.
Sunnyvale, CA 94089
(408) 744-1930
Major Market: Communications Equipment Manufacturing; OEM (Computer Systems); OEM (Peripherals-Terminals), Systems House (Commercial OEM); Dealer/Distributor
Contacts:
Head of Marketing/Sales: Bill Rubin
Head of Engineering: Ken Larsen
Head of Customer Service: Dave Russell
Geographic Coverage: National
Year Established: 1968
Number of Employees: 29

INTERNETICS
733 Concord Ave.
Cambridge, MA 02138
Major Market: Software House
Geographic Coverage: National
Year Established: 1968
Number of Employees: 400

INTERNATIONAL DATA SCIENCES, INC.
Corporate Headquarters
7 Wellington Road
Lincoln, RI 02865
(401) 333-6200
Major Market: Peripheral and Communications Equipment Manufacturing
Target Industries: Engineering; Banking; Military; Aviation
Net Sales: $1 Million — $5 Million (1981)
Contacts:
Head of Marketing: Jack Simpson
Head of Sales: T. J. Daniels

Head of Engineering: Ed Salzillo
Geographic Coverage: International
Year Established: 1968
Number of Employees: 150

INTERNATIONAL DIGITAL ELECTRONICS ASSOCIATES
5 Westchester Plaza
Elmsford, NY 10523
(914) 347-3700
Major Market: Terminal Manufacturing, Software House, Systems House (Commercial OEM)
Target Industries: Communications
Target Applications: Communications
Contacts:
Head of Marketing: Charles T. Reilly
Geographic Coverage: International
Year Established: 1976
Number of Employees: 25

INTERNATIONAL MODEM EXCHANGE (TIMECOR)
P.O. Box 8926
Suite 905
4 Longfellow Place
Boston, MA 02114
(617) 720-4080
Major Market: Communications Equipment Manufacturing
Number of Employees: 10

INTERSIL SYSTEMS, INC.
1275 Hammerwood Ave.
Sunnyvale, CA 94089
(408) 743-4300
Major Market: Component, Computer, Terminal, Peripheral, Communications Equipment and Office Equipment Manufacturing; OEM (Peripherals-Terminals); Software House, Systems House (Commercial OEM); Dealer/Distributor
Target Industries: System Integrators; Large Company In-House Communications; Industrial Control; IBM PC
Target Applications: Factory Automation; OA; DP
Contacts:
Head of Marketing: Lee Jansen
Head of Software: Craig Erickson
Geographic Coverage: International
Year Established: 1968
Number of Employees: 200

ITEK COMPOSITION SYSTEMS
34 Sellu Dr.
Nashua, NH 03063
(603) 889-1400
Major Market: Component, Computer, Terminal, Peripheral, Communications Equipment and Office Equipment Manufacturing, Dealer/Distributor
Target Industries: Publishing; Media; Office Systems
Target Applications: Typesetting; Data Conversion
Contacts:
Head of Marketing: William McPherson
Head of Sales: Bill Kelly
Head of Engineering: Edward Neyland
Head of Customer Service: David Sinnott
Geographic Coverage: International
Year Established: 1976
Number of Employees: 600

ITT BUSINESS COMMUNICATIONS CORP.
300 E. Park Dr.
Harrisburg, PA 17111
(717) 564-4343
Major Market: Communications Equipment Manufacturing, Dealer/Distributor
Target Industries: Fortune 1000
Target Applications: Communications
Contacts:
Head of Marketing: Mike Hickey
Head of Sales: Terry Price

ITT TELECOM PRODUCTS, INC.
3100 Highwoods Blvd.
Raleigh, NC 27604
(919) 872-3759
Major Market: Component, Computer, Terminal, Peripheral and Communications Equipment Manufacturing; Software House; Systems House (Commercial OEM); Data Services (Service Bureau); Dealer/Distributor
Target Industries: Telephone, Cellular Radio, Business, Industrial
Target Applications: Switching; Transmission; Data; Instrumentation
Contacts:
Head of Marketing: Ken Ray
Head of Software: W.L. Glomb
Head of Customer Service: George Young Jr.
Geographic Coverage: International
Year Established: 1963
Number of Employees: 9,500

IWATSU AMERICA, INC.
120 Commerce Road
Carlstadt, NJ 07072
(201) 935-8580
Major Market: Communications Equipment Manufacturing, Software House
Contacts:
Head of Marketing: Dan Mahoney
Head of Sales: Charles Rolland
Geographic Coverage: International
Year Established: 1938
Number of Employees: 40

J B M ELECTRONICS
8020 N. Lindbergh Blvd
Hegelwood, MS 63042
(314) 731-7781
Major Market: Communications Equipment Manufacturing
Target Industries: Telecommunications
Contacts:
Head of Marketing: Steve Mintz
Head of Software: James Harrison
Head of Engineering: Irwin Mintz
Year Established: 1975
Number of Employees: 53

JC SYSTEMS
469 Valley Way
Milpitas, CA 95035
(408) 945-0319
Major Market: Component, Computer and Communications Equipment Manufacturing; Software House
Target Industries: Manufacturing; Engineering; Offices; Education
Target Applications: Data Communications; WP; DBMS
Net Sales: $500,000 - $1 Million (1983)
Contacts:
Head of Marketing: Yung Choi
Head of Engineering: Jai Choi
Head of Customer Service: Dave Tom
Geographic Coverage: International
Year Established: 1978
Number of Employees: 10

KAPUSI LABORATORIES
2121 S. El Camino Real
San Mateo, CA 94403
(415) 573-5475
Major Market: Communications Equipment Manufacturing
Contacts:
Head of Marketing: John J. Kapusi
Geographic Coverage: International
Year Established: 1972
Number of Employees: 10

KAUFMAN RESEARCH MANUFACTURING, INC.
145 E. Dana St.
Mountain View, CA 94041
(415) 962-8811
Major Market: Communications Equipment Manufacturing
Target Applications: Protocol Conversion; Data Communications
Net Sales: $1 Million — $5 Million (1983)
Contacts:
Head of Marketing: Marc T. Kaufman
Geographic Coverage: International
Year Established: 1978
Number of Employees: 17

KEYBROOK BUSINESS SYSTEMS, INC.
2035 National Ave.
Hayward, CA 94545
(415) 887-8999
Major Market: Computer Manufacturing; Peripheral Manufacturing; OEM (Computer Systems); OEM (Peripherals-Terminals); Software House
Target Industries: Fortune 1000; Government, Education; Small Business
Contacts:
Head of Marketing: Don Gallagher
Head of Software: John Row
Head of Engineering: J. Rogers
Geographic Coverage: International
Year Established: 1978
Number of Employees: 12

KEYSTONE DATA CONSULTANTS, INC.
24 E. Princess St.
P.O. Box 606
York, PA 17405
(717) 848-5606
Major Market: Software House; Systems House (Commercial OEM); Data Services (Service Bureau); Dealer/Distributor
Target Industries: Manufacturing; Engineering
Target Applications: POS; Accounting; Inventory Management; Industry Control
Net Sales: $100,000 — $500,000 (1981)
Geographic Coverage: International
Year Established: 1977
Number of Employees: 8

KINEX CORP.
6950 Bryan Dairy Road
Largo, FL 33543
(813) 541-6404
Major Market: Communications Equipment Manufacturing
Contacts:
Head of Marketing: Bill Huston
Head of Sales: S.F. Ridge
Head of Software: G. Michalec
Head of Engineering: K.I. Nordling
Head of Customer Service: T. Porter
Geographic Coverage: National
Year Established: 1977
Number of Employees: 75

KMW SYSTEMS CORP.
8307 Highway 71 W.
Austin, TX 78735
(512) 288-1453
Major Market: Computer, Peripheral, Communications Equipment and Interface Manufacturing
Target Industries: Geophysical, Aerospace
Target Applications: Communication; Graphics; Channel Interfacing
Contacts:
Head of Marketing: Fred Klingensmith
Head of Sales: Steve Stillman
Head of Software: Harry D. Kelms
Head of Engineering: Thomas Allen
Head of Customer Service: Karen Wiley
Geographic Coverage: International
Year Established: 1975
Number of Employees: 60

LEADING EDGE PRODUCTS, INC.
221 Turnpike St.
Canton, MA 02021
(617) 828-8150
Major Market: Peripheral Manufacturing; Dealer/Distributor
Target Industries: System Houses; Computer Retail Stores
Target Applications: Accounting; Games; Education
Contacts:
Head of Marketing: William Sellers
Geographic Coverage: International
Year Established: 1979
Number of Employees: 160

LEARNED-MAHN
2229 W. State St.
P.O. Box 1488
Boise, ID 83701
(208) 336-2281
Major Market: Software House
Target Industries: Utilities, Nonprofit
Target Applications: Accounting
Net Sales: $100,000 — $500,000 (1981)
Contacts:
Head of Sales: Gary Mahn

Vendors

Head of Software: Nancy Learned
Head of Customer Service: Gary Mahn
Geographic Coverage: International
Year Established: 1973
Number of Employees: 10

LSD SYSTEMS, INC.
1008 Apache Trail
Mechanicsburg, PA 17055
(717) 697-2607
Major Market: Communications Equipment Manufacturing
Target Industries: Government, Education; Industry; Telephone
Target Applications: Data Communications
Contacts:
Head of Marketing: Ralph Cleveland
Year Established: 1979
Number of Employees: 10

LEGIST AUTOMATION, INC.
1212 Millbrook Dr
Arlington, TX 76012
(817) 274-0089
Major Market: Software House
Contacts:
Head of Marketing: Judy Carrick
Geographic Coverage: International
Year Established: 1980
Number of Employees: 3

LEMCOM SYSTEMS, INC.
2104 W. Peoria Ave.
Phoenix, AZ 85029
(602) 944-1543
Major Market: Communications Equipment Manufacturing
Net Sales: $1 Million — $5 Million (1982)
Contacts:
Head of Marketing: Terry Siegrist
Head of Engineering: Phil Jalowiec
Geographic Coverage: International
Year Established: 1976
Number of Employees: 45

LEXICON CORP. OF MIAMI
1541 N.W. 65th Ave.
Fort Lauderdale, FL 33313
(305) 792-4400
Major Market: Terminal and Communications Equipment Manufacturing
Target Industries: Fortune 1000
Target Applications: Order Entry; Electronic Mail
Net Sales: $1 Million — $5 Million (1981)
Contacts:
Head of Marketing: Chris Washburn
Geographic Coverage: International
Year Established: 1E76
Number of Employees: 42

LINDBERGH SYSTEMS
41 Fairhill Road
Holden, MA 01520
(617) 852-0233
Major Market: Software House
Net Sales: $100,000 — $500,000 (1981)
Contacts:
Head of Sales: Alison Wilson
Head of Software: Dave Lindbergh
Geographic Coverage: International
Year Established: 1980
Number of Employees: 3

LINK SYSTEMS
1640 19th St
Santa Monica, CA 90404
(213) 453-1851
Major Market: Software House
Net Sales: $1 Million — $5 Million (1981)
Contacts:
Head of Sales: Rick Gibson
Head of Engineering: Curt Bianchi
Geographic Coverage: International
Year Established: 1980

LOCAL DATA, INC.

2701 Toledo St.
Torrance, CA 90503
(213) 320-7126
Major Market: Communications Equipment Manufacturing
Net Sales: $1 Million — $5 Million (1982)
Contacts:
Head of Sales: Dave Guthrie
Head of Engineering: Dennis Klein
Head of Customer Service: Kevin Jackson
Geographic Coverage: International
Year Established: 1977
Number of Employees: 50

LOGICA, INC.
666 3rd Ave., 19th Floor
New York, NY 10017
(212) 599-0828
Major Market: Communications Equipment Manufacturing; Software House; Systems House (Commercial OEM)
Target Industries: Banking; Telecommunications; Defense; Space
Target Applications: Message Switching, Communications, System Design
Contacts:
Head of Marketing: William Shrimpton
Head of Sales: Bob Wisniewski
Geographic Coverage: International
Year Established: 1968
Number of Employees: 1,500

LYNCH COMMUNICATION SYSTEMS, INC.
Data Division
204 Edison Way
Reno, NV 89520
(702) 785-8680
Major Market: Communications Equipment Manufacturing; Dealer/Distributor
Target Applications: Data Communications
Contacts:
Head of Marketing: Alexander A. Mevronides
Geographic Coverage: International
Year Established: 1945
Number of Employees: 1,000

M/A-COM DCC, INC.
11717 Exploration Lane
Germantown, MD 20874-2799
(301) 428-5500
Major Market: Communications Equipment Manufacturing
Target Industries: Banking; Law; Universities; Government
Target Applications: Data Communications
Contacts:
Head of Marketing: Cathy Jenkins
Head of Sales: Garland Audlet
Geographic Coverage: International
Year Established: 1971
Number of Employees: 900

M/A-COM, INC.

Linkabit
3033 Science Park Road
San Diego, CA 92121
(61E) 457-2340
Major Market: Communications Equipment Manufacturing
Target Industries: Satellite Communications; Goverment; Cable; Broadcasting, Banking
Contacts:
Head of Marketing: Mike Lubin
Head of Engineering: Tom Seay
Geographic Coverage: International
Year Established: 1968
Number of Employees: 1,300

MACKINNEY SYSTEMS
Rte. 2
Box 270A
Fair Grove, MO 65648
(417) 833-9553
Major Market: Software House
Net Sales: Less than $100,000 (1981)
Geographic Coverage: International
Year Established: 197E
Number of Employees: 3

MADZAR CORP.
37490 Glenmoor Dr
Fremont, CA 94536
(415) 794-7400
Major Market: Communications Equipment Manufacturing
Contacts:
Head of Marketing: Donald H. Platt
Geographic Coverage: International
Year Established: 1979
Number of Employees: 5

MAGNUM COMMUNICATIONS, LTD.
Suite 415
320 Interstate N.
Atlanta, GA 30339
(404) 952-4940
Major Market: Communications Equipment Manufacturing; Software House; Systems House (Commercial OEM)
Target Industries: Credit Unions, Banking; Retail; Finance
Target Applications: Credit Reports; New Accounts
Net Sales: $100,000 - $500,000 (1981)
Contacts:
Head of Marketing: Sue Knautz
Head of Software: Lindsey Gardener
Geographic Coverage: National
Year Established: 1976
Number of Employees: 13

MAMAGE, INC.
P.O. Box 175
Chicopee, MA
(413) 598-8204
Major Market: Communications Equipment Manufacturing
Target Industries: Banking; Retail, Engineering
Contacts:
Head of Marketing: Linda Menard
Head of Sales: David P. Menard
Geographic Coverage: National
Year Established: 1E73
Number of Employees: 30

MATH ASSOCIATES, INC.
2200 Shames Dr.
Westbury, NY 11590
(516) 334-5600
Major Market: Component, Peripheral and Communications Equipment Manufacturing; Custom Communications Equipment
Contacts:
Head of Marketing: Bob DeLia
Head of Sales: Norman Fein
Head of Engineering: Irwin Math
Geographic Coverage: Western Europe
Year Established: 1972
Number of Employees: 30

MATHEMATICA PRODUCTS GROUP, INC.
P.O. Box 2392
Princeton, NJ 08540
(609) 799-2800
Major Market: Software House
Contacts:
Head of Marketing: Paul Grabshaid
Head of Sales: Mark Berkowitz
Head of Software: Bernard Finzi
Geographic Coverage: International
Year Established: 1975
Number of Employees: 200

MCCORMACK & DODGE CORP.
566 Hillside Ave
Needham, MA 02194
(617) 449-4012
Major Market: Software House
Target Applications: Financial; Accounting
Contacts:
Head of Marketing: Robert Weller
Head of Sales: Steven Weinburg
Head of Engineering: John Landry
Geographic Coverage: International
Year Established: 1969
Number of Employees: 400

MCDONNELL DOUGLAS AUTOMATION CO.
P.O. Box 51E
St. Louis, MO 63166
(314) 233-471E
Major Market: Software House, Systems House (Commercial OEM); Data Services (Service Bureau)
Target Industries: Medical
Target Applications: Financial Systems; Data Collection, Patient Care Reporting
Contacts:
Head of Marketing: Edward V. Hamilton Jr.
Head of Sales: Arthur M. Randell
Head of Software: Philip Kreted
Head of Engineering: William T. Corvin
Head of Customer Service: Joseph P. Sullivan
Geographic Coverage: International

Year Established: 1970
Number of Employees: 1,000

MCM ENTERPRISES
215 Hamilton Ave
Palo Alto, CA 94301
(415) 827-8080
Major Market: OEM (Computer Systems); Software House
Net Sales: $100,000 - $500,000 (1981)
Geographic Coverage: International
Year Established: 1977
Number of Employees: 5

MEGADATA CORP.
35 Orville Dr.
Bohemia, NY 11716
(516) 589-6800
Major Market: Computer and Office Equipment Manufacturing
Net Sales: $1 Million - $5 Million (1982)
Contacts:
Head of Marketing: Richard Adams
Geographic Coverage: International
Year Established: 1967
Number of Employees: 150

MEGAWEST SYSTEMS, INC.
Suite 224
140 W. 2100 S.
Salt Lake City, UT 84115
(801) 487-0788
Major Market: OEM (Computer Systems); Software House, Systems House (Commercial OEM)
Target Industries: Medical, Retail; Accounting; Trucking
Geographic Coverage: International
Year Established: 1979
Number of Employees: 10

MELCO LABS, INC.
14406 N.E. 20th St.
Bellevue, WA 98007
(206) 643-3400
Major Market: Communications Equipment Manufacturing
Target Industries: Telephone
Contacts:
Head of Customer Service: Key Barney
Year Established: 1973
Number of Employees: 250

MEMOREX CORP.
Santomas and Central Expressways
Santa Clara, CA 95052
(408) 987-1000
Major Market: Terminal, Peripheral and Communications Equipment Manufacturing; Systems House (Commercial OEM); Dealer/Distributor
Target Industries: Fortune 1000
Contacts:
Head of Marketing: Dennis Flanagan
Head of Sales: Sam Spadafora
Head of Engineering: Lou Debertalo
Head of Customer Service: Robert Berry
Geographic Coverage: International
Year Established: 1961
Number of Employees: 10,000

MERIDIAN TECHNICAL ASSOCIATES, INC.
2 Southboro Lane
Glenrock, NJ 07452
(201) 445-8645
Major Market: Communications Equipment Manufacturing; Software House, Systems House (Commercial OEM); Data Services (Service Bureau); Dealer/Distributor
Target Industries: Data Communications, Business; Micro
Contacts:
Head of Marketing: J. Fitzpatrick
Year Established: 1980
Number of Employees: 3

METAPATH, INC.
737 Lincoln Centre Dr.
Forest City, CA 94404
(415) 345-7700
Target Industries: Data Communications
Target Applications: Terminal Switching to HP and DEC
Contacts:
Head of Marketing: Tom Cramer
Year Established: 1983
Number of Employees: 30

MFJ ENTERPRISES
P.O. Box 494
Starkville, MS 39762
(601) 323-5869
Major Market: Communications Equipment Manufacturing, Software House
Year Established: 1972
Number of Employees: 75

MICOM SYSTEMS
Micro-Staud Systems, Inc.
3393 Delacruz Blvd
Santa Clara, CA 95050-2283
(408) 727-5275
Major Market: Communications Equipment Manufacturing
Target Industries: OEM Terminal and OEM Computer Manufacturing; End Users (Bell 212); Distributors (Stand-Alone)
Target Applications: Modems
Net Sales: $1 Million - $5 Million (1982)
Contacts:
Head of Marketing: Bob Taylor
Head of Sales: Joseph Gaynor
Head of Software: Stan Fickes
Head of Engineering: Lucian Derg
Geographic Coverage: National
Year Established: 1980
Number of Employees: 30

MICOM SYSTEMS, INC.

20151 Nordhoff St.
Chatsworth, CA 91311
(213) 998-8844
Major Market: Communications Equipment Manufacturing
Contacts:
Head of Marketing: Steve Frankel
Head of Sales: Chris Kesber
Geographic Coverage: International
Year Established: 1973
Number of Employees: 1,200

MICRO-INTEGRATION, INC.
63 Maple St.
P.O. Box 335
Friendsville, MD 21531
(301) 746-5888
Major Market: Software House
Target Applications: Micro Data Communications
Net Sales: $500,000 - $1 Million (1981)
Contacts:
Head of Marketing: Max Eveleth
Head of Sales: Kelly Wiseman
Head of Software: Frank Ross
Head of Engineering: Ernie Nichols
Head of Customer Service: Marsha Shank
Geographic Coverage: International
Year Established: 1979
Number of Employees: 15

THE MICROPERIPHERAL CORP.
2585 152nd Ave. N.E.
Redmond, WA 98052
(206) 881-7544
Major Market: Communications Equipment Manufacturing; Software House
Target Applications: Data Communications, Telecommunications
Contacts:
Head of Marketing: Noreen Scott
Geographic Coverage: International
Year Established: 1978
Number of Employees: 50

MICRO-SYSTEMS SOFTWARE, INC.
4301-18 Oak Circle
Boca Raton, FL 33431
(305) 391-5033
Major Market: Software House
Net Sales: $500,000 - $1 Million (1981)
Contacts:
Head of Sales: Chris Walczak
Geographic Coverage: International
Year Established: 1979
Number of Employees: 13

MICRO/MACRO SYSTEMS, INC.
10 Columbus Circle
25th Floor
New York, NY 10019
(212) 246-4242
Major Market: Software House, Systems House (Commercial OEM); Dealer/Distributor
Target Industries: Direct Mail; Construction; Financial; Contractors
Target Applications: Accounting; Graphics, Scientific Data Acquisition; Payroll
Net Sales: $1 Million - $5 Million (1981)
Contacts:
Head of Sales: Gerald Greenberg
Geographic Coverage: National
Year Established: 1968
Number of Employees: 30

MICROCOM, INC.
1400-A Providence Highway
Norwood, MA 02062
(617) 762-8310
Major Market: Communications Equipment Manufacturing
Contacts:
Head of Sales: Harry Segal
Geographic Coverage: Regional
Year Established: 1980
Number of Employees: 70

MICROCOSYS, INC.
Suite 102
6055 Lehman Dr.
Colorado Springs, CO 80907
(303) 594-9241
Major Market: Communications Equipment Manufacturing
Target Industries: Computer
Target Applications: Honeywell Large Systems Communications
Net Sales: $100,000 - $500,000 (1981)
Contacts:
Head of Marketing: Kurt M. Friable
Head of Software: Bruce Trowbridge
Geographic Coverage: National
Year Established: 1976
Number of Employees: 2

MICRODATA CORP.
4000 McArthur
P.O. Box 19501
Irvine, CA 92713
(714) 250-1000
Major Market: Computer, Terminal, Peripheral and Communications Equipment Manufacturing
Contacts:
Head of Marketing: Bob Purdy
Geographic Coverage: International
Year Established: 1969
Number of Employees: 3,000

MICROLOG, INC.
222 Rte. 59
Suffern, NY 10901
(914) 368-0353
Major Market: Component and Communications Equipment Manufacturing
Target Industries: Government; Banking, Insurance
Contacts:
Head of Marketing: Andrew Watson
Geographic Coverage: National
Year Established: 1981
Number of Employees: 35

MICRON, INC.
10045 Waterford Dr.
Ellicott City, MD 21043
(301) 461-2721
Major Market: Software House
Geographic Coverage: National
Year Established: 1975
Number of Employees: 3

MICROSPARC, INC.
10 Lewis St.
Lincoln, MA 01773
(617) 259-9710
Major Market: Software House
Target Industries: Personal Computers
Net Sales: $1 Million - $5 Million (1982)
Contacts:
Head of Marketing: David P. Szatala
Head of Sales: Tammy J. Arico
Geographic Coverage: International
Year Established: 1980
Number of Employees: 15

MICROSTUF, INC.
Suite 140
1845 The Exchange

Vendors

Atlanta, GA 30339
(404) 952-0267
Major Market: Software House
Target Applications: Data Communications
Geographic Coverage: National
Year Established: 1979
Number of Employees: 12

MIDWEST DATA SOURCE
1010 Nimetz
Cincinnati, OH 45230
(513) 231-2023
Major Market: Communications Equipment Manufacturing
Contacts:
Head of Marketing: James Japson
Head of Software: Mike Shier
Head of Engineering: William Miller
Head of Customer Service: Barbara Bailey
Geographic Coverage: International
Year Established: 1980
Number of Employees: 7

MINITRONICS CORP.
2599 White Bear Ave.
St. Paul, MN 55109
(612) 770-5247
Major Market: Peripheral and Communications Equipment Manufacturing
Target Industries: Banking; Military; Education; Commercial
Contacts:
Head of Sales: Jim Cobb
Head of Engineering: Deane Ries
Head of Customer Service: Shona Hillman
Geographic Coverage: International
Year Established: 1975

MITEL, INC.
Mitel Semiconductor Division
5400 Broken Sound Blvd.
Boca Raton, FL 33431
(305) 994-9588
Major Market: Component, Terminal, Peripheral, Communications Equipment and Office Equipment Manufacturing; OEM (Peripherals-Terminals); Dealer/Distributor
Target Industries: Telecommunications
Contacts:
Head of Sales: Gordon Turner
Head of Engineering: Tom Meyer
Geographic Coverage: National
Year Established: 1971

MITSUBISHI ELECTRONICS AMERICA, INC.
Computer Division
991 Knox St.
Torrance, CA 90502
(213) 515-3993
Major Market: Computer, Terminal and Peripheral Manufacturing; OEM (Computer Systems); Software Houses; Dealer/Distributor
Target Industries: Manufacturing; Contractors
Target Applications: Accounting; Data Entry
Geographic Coverage: National
Year Established: 1978
Number of Employees: 100

MODEMS PLUS, INC.
217 E. Trinity Place
P.O. Box 1727
Decatur, GA 30030
(404) 378-5276
Major Market: Communications Equipment Manufacturing, OEM (Computer Systems); OEM (Peripherals-Terminals), Systems House (Commercial OEM); Dealer/Distributor
Net Sales: $1 Million - $5 Million (1982)
Contacts:
Head of Engineering: Tom Young
Geographic Coverage: International
Year Established: 1971
Number of Employees: 20

MODULAR COMPUTER SYSTEMS, INC. (MODCOMP)
1650 W. McNab Road
Ft. Lauderdale, FL 33310
(305) 974-1380
Major Market: Computer Manufacturing; Communications Equipment Manufacturing; Systems House (Commercial OEM)
Target Industries: Process Control; Communications; Viewdata; Factory Automation
Target Applications: Process Control; Energy Management; Discrete Manufacturing
Contacts:
Head of Marketing: Philippe Courtot
Head of Sales: Howard Kossack
Head of Engineering: Harold Koplow
Head of Customer Service: Ken Estey
Geographic Coverage: International
Year Established: 1970
Number of Employees: 1,500

MODULAR INTEGRATION, INC.
Suite 1
Building C
1145 12th Ave. N.W.
P.O. Box 1079
Issaquah, WA 98027
(206) 392-8086
Major Market: OEM (Computer Systems)
Target Industries: Water/Wastewater
Target Applications: Process Control
Net Sales: $1 Million - $5 Million (1981)
Contacts:
Head of Marketing: Jane Kunkos
Head of Sales: James Wooten
Head of Customer Service: Jane Kunkos
Geographic Coverage: International
Year Established: 1977
Number of Employees: 11

MOHAWK DATA SCIENCES CORP.
Seven Century Dr.
Parsippany, NJ 07054
(201) 540-9080
Major Market: Computer, Terminal and Peripheral Manufacturing; Software House
Target Industries: Hospitals, Hospitality; Retail Footwear; Motor Vehicle
Contacts:
Head of Marketing: Brian S. Gaylord
Geographic Coverage: International
Year Established: 1964
Number of Employees: 5,300

MONROE SYSTEMS FOR BUSINESS
Litton Industries, Inc.
The American Road
P.O. Box 9000R
Morris Plains, NJ 07950
(201) 540-7300
Major Market: Computer and Office Equipment Manufacturing, OEM (Computer Systems); Software House
Target Industries: Banking; Accounting
Target Applications: Financial
Contacts:
Head of Marketing: Robert McGrath
Geographic Coverage: International
Year Established: 1912
Number of Employees: 3,300

MORGAN DATA SYSTEMS
233 Racetrack Road
Fort Walton Beach, CA 32548
(904) 863-2124
Major Market: Communications Equipment Manufacturing; OEM (Computer Systems); Manufacturing Special Systems
Target Industries: Communications
Target Applications: Instrumentation; Control; Monitoring; Data Acquisition
Contacts:
Head of Marketing: Constantine Dudek
Head of Customer Service: David Johnson
Geographic Coverage: National
Year Established: 1971
Number of Employees: 8

MOTOROLA, INC.
1301 E. Algonquin Road
Schaumburg, IL 60196
(312) 576-7000
Major Market: Component, Computer, Terminal, Communications Equipment and Office Equipment Manufacturing; OEM (Peripherals-Terminals); Systems House (Commercial OEM); Data Services (Service Bureau); Dealer/Distributor
Target Industries: Public Safety; Industrial; Oil; Mass Transit
Target Applications: Security; Motor Vehicle Efficiency; Hospital Paging; Personnel Communications
Contacts:
Head of Marketing: Bob Cecil
Head of Sales: Art Sundry
Head of Customer Service: Ira Walker
Geographic Coverage: International
Year Established: 1928
Number of Employees: 75,000

MOUNTAIN COMPUTER, INC.
300 El Pueblo Road
Scotts Valley, CA 95066
(408) 438-6650
Major Market: Peripheral, Communications Equipment and Office Equipment Manufacturing; OEM (Peripherals-Terminals); Dealer/Distributor; Storage System
Target Applications: Data Entry; Communications; Storage System
Net Sales: $1 Million - $5 Million (1981)
Contacts:
Head of Marketing: Robert Stroh
Head of Software: George Proper
Head of Engineering: Eric Swartz
Head of Customer Service: Stan Scordino
Geographic Coverage: International
Year Established: 1977
Number of Employees: 120

MTI SYSTEMS CORP.
38 Harbor Park Dr.
P.O. Box 271
Port Washington, NY 11050
(516) 621-6200
Major Market: OEM (Computer Systems); Dealer/Distributor
Target Industries: Fortune 500; Education, Banking; OEM
Net Sales: $1 Million - $5 Million (1981)
Contacts:
Head of Marketing: Bert Rudofsky
Head of Customer Service: Joe Morreale
Geographic Coverage: Regional
Year Established: 1968
Number of Employees: 55

MUNNEAB, INC.
1101 Bristol Road
Mountainside, NJ 07092
(201) 233-6010
Major Market: Communications Equipment Manufacturing
Target Industries: Utilities, Common Carriers, Oil Companies, Publishers
Target Applications: Printing; Data Communications
Contacts:
Head of Marketing: Holmes Bailey
Head of Engineering: Jason Evelsh
Geographic Coverage: International
Year Established: 1954
Number of Employees: 80

MULTI — TECH SYSTEMS, INC.
82 2nd Ave. S.E.
New Brighton, MN 55112
(612) 631-3550
Major Market: Computer and Communications Equipment Manufacturing, OEM (Computer Systems)
Target Industries: Retail; End User
Target Applications: WP; Accounting, MRP; List Management
Contacts:
Head of Marketing: Thomas Hennerman
Head of Engineering: Greg Johnson
Head of Customer Service: Pete Hanlon
Geographic Coverage: National
Year Established: 1970
Number of Employees: 50

MULTITRONICS, INC.
Industrial Products Division
6444 Sierra Court

P.O. Box 2295
Dublin, CA 94568
(415) 829-3300
Major Market: Computer and Communications Equipment Manufacturing; OEM (Computer Systems); OEM (Peripherals-Terminals); Software House, Systems House (Commercial OEM)
Target Industries: System Houses, System Integration; Process Control; Water/Wastewater
Target Applications: Data Acquisition; Water Distribution Control, Process Control
Net Sales: $1 Million - $5 Million (1981)
Contacts:
Head of Marketing: Warren McGuffin
Head of Sales: Bill Cox
Head of Software: James Hays
Head of Engineering: Tom Seabury
Head of Customer Service: Roy Weaver
Geographic Coverage: National
Year Established: 1970
Number of Employees: 200

MUNFORD MICRO SYSTEMS
P.O. Box 400
Summerland, CA 93067
(805) 969-4557
Major Market: Software House
Contacts:
Head of Marketing: Peter Burns
Geographic Coverage: International
Year Established: 1979
Number of Employees: 8

N.F. SYSTEMS, LTD.
P.O. Box 76363
Atlanta, GA 30358
(404) 252-3302
Major Market: Software House
Net Sales: $100,000 - $500,000 (1982)
Geographic Coverage: Canada
Year Established: 1981
Number of Employees: 2

NATIONAL COMPUTER SYSTEMS, INC.
Scanning Products Division
4401 W. 76th St.
P.O. Box 9365
Minneapolis, MN 55440
(612) 830-7600
Major Market: Component, Terminal, Peripheral and Communications Equipment Manufacturing; OEM (Peripherals-Terminals); Software House, Systems House (Commercial OEM); Dealer/Distributor
Target Industries: Education; Human Resources; Government; Clinical
Target Applications: OMR; Data Entry
Contacts:
Head of Marketing: Gene Courtney
Head of Sales: John Kirchner
Head of Software: Laurence Erickson
Head of Engineering: L. Sanderson
Head of Customer Service: J. Lockner
Geographic Coverage: International
Year Established: 1962
Number of Employees: 1,300

NATIONAL E-P-T, INC.
Systems Development
89 Jefferson Blvd.
Warwick, RI 02888
(401) 781-3850
Major Market: Software House, Systems House (Commercial OEM)
Target Industries: Manufacturing; Government; Banking
Net Sales: $1 Million - $5 Million (1981)
Contacts:
Head of Marketing: Donald Kennedy
Head of Software: Donald R. LaChance
Head of Customer Service: Robert Peluso
Geographic Coverage: Regional
Year Established: 1976
Number of Employees: 62

NATIONAL MICRO PRODUCTS, INC.
430 Southlake Blvd.
Richmond, VA 23236
(804) 794-0517
Major Market: Computer and Communications Equipment Manufacturing, OEM (Computer Systems); Systems House (Commercial OEM); Dealer/Distributor
Target Industries: Small Business; Lodging; Security
Target Applications: Office Networks; Process Control
Net Sales: $100,000 - $500,000 (1981)
Contacts:
Head of Marketing: Carol Nugent
Head of Engineering: Stan Demeter
Geographic Coverage: National
Year Established: 1980
Number of Employees: 14

NATIONAL PRODUCTS MARKETING, INC.

Suite 234
2 Northside 77
Atlanta, GA 30318
(800) 241-1170
Contacts:
Head of Marketing/Sales: Elizabeth Addison
Head of Engineering/Software: Joe Hale
Geographic Coverage:
Year Established: 1982
Number of Employees: 30

NATIONAL SEMICONDUCTOR CORP.
2900 Semiconductor Dr
Santa Clara, CA 95051
(408) 721-5000
Major Market: Component, Computer, Terminal, Peripheral and Communications Equipment Manufacturing, Software House; Systems House (Commercial OEM); Dealer/Distributor; Special Systems
Target Industries: Military
Contacts:
Head of Marketing: F. J. Van Popelen
Geographic Coverage: International
Year Established: 1965
Number of Employees: 35,000

NBI, INC.
3450 Mitchell Lane
P.O. Box 9001
Boulder, CO 80301
(303) 444-5710
Major Market: Communications Equipment and Office Equipment Manufacturing; Software House
Target Industries: Administrative; Finance; Manufacturing; Engineering/Scientific
Target Applications: GA
Contacts:
Head of Marketing: Rob Reid
Head of Sales: Mark Stevenson
Geographic Coverage: International
Year Established: 1973
Number of Employees: 1,300

NCR COMTEN, INC.
2700 Snelling Ave. N.
St. Paul, MN 55113
(612) 638-7777
Major Market: Computer and Communications Equipment Manufacturing; Software House
Target Industries: Finance; Telecommunications; Retail; Oil Industry
Target Applications: Networking; Telecommunications
Contacts:
Head of Marketing: V. W. Ystad
Head of Sales: R. E. Oldenberg
Head of Software: R. M. Groenke
Head of Engineering: G. Iverson
Head of Customer Service: L. Ackerman
Geographic Coverage: International
Year Established: 1968
Number of Employees: 2,200

NCR CORP.
World Headquarters
1700 S. Patterson Blvd.
Dayton, OH 45479
(513) 445-5000
Major Market: Component, Computer, Terminal, Peripheral, Communications Equipment and Office Equipment Manufacturing; Software House; Systems House (Commercial OEM); Data Services (Service Bureau)
Target Industries: Retail; Banking; Commercial/Industrial; Medical Education; Government
Target Applications: Transaction Processing
Contacts:
Head of Customer Service: V. F. Bean
Geographic Coverage: International
Year Established: 1884
Number of Employees: 63,000

NEC TELEPHONE, INC.
532 Broad Hollow Road
Melville, NY 11747
(516) 752-9760
Major Market: Communications Equipment Manufacturing
Target Industries: Hotels; Government; Fortune 100
Contacts:
Head of Marketing: Mike Rosen
Head of Sales: Skip Connolly
Head of Engineering: Kanji Suzuki
Head of Customer Service: Ralph Russo
Geographic Coverage: International
Year Established: 1971
Number of Employees: 170

NEDCO
167 San Zeno Way
Sunnyvale, CA 94086
(408) 737-2080
Major Market: Communications Equipment Manufacturing; Communications Network
Target Industries: Utilities
Target Applications: Telecommunications
Contacts:
Head of Marketing: Jim Peluso
Head of Customer Service: Nancy Peluso
Geographic Coverage: International
Year Established: 1975
Number of Employees: 30

NESTAR SYSTEMS, INC.
2585 East Bayshore Road
Palo Alto, CA 94303
(415) 493-2223
Major Market: Component, Computer, Peripheral, Communications Equipment and Office Equipment Manufacturing; OEM (Peripherals-Terminals); Software House; Systems House (Commercial OEM); Dealer/Distributor
Target Industries: Financial; Manufacturing
Contacts:
Head of Marketing: Peter Herlan
Head of Sales: William Coleman
Head of Engineering: Leonard J. Shustek
Geographic Coverage: International
Year Established: 1978
Number of Employees: 100

NETWORK PRODUCTS, INC.
Progress Center
P.O. Box 13238
Research Triangle Park, NC 27709
(919) 549-8210
Major Market: Communications Equipment Manufacturing
Target Industries: System Houses
Contacts:
Head of Marketing: John H. Rouse
Head of Software: Stephen I. Schleimer
Geographic Coverage: International
Year Established: 1981
Number of Employees: 25

NETWORK SYSTEMS CORP.
7600 Boone Ave. N.
Brooklyn Park, MN 55428
(612) 425-2202
Major Market: Software House
Target Industries: Finance; Manufacturing; Petro/Chemical; Data Service
Target Applications: Computer-To-Computer Network, Remote Service Network, Local-Area Networks
Contacts:
Head of Marketing: Mahlon Moore
Head of Software: Hal Durrett

Vendors

Head of Engineering: Gerald Olson
Head of Customer Service: Don Leu
Geographic Coverage: International
Year Established: 1974
Number of Employees: 450

NEW GENERATION SYSTEMS, INC.
2153 Golf Course Dr.
Reston, VA 22091
(703) 476-9143
Major Market: Software House
Net Sales: $100,000 - $500,000 (1982)
Geographic Coverage: International
Year Established: 1981
Number of Employees: 2

NIXDORF COMPUTER CORP.
300 Third Ave.
Waltham, MA 02154
(617) 890-3600
Major Market: Component, Computer, Terminal, Peripheral and Communications Equipment Manufacturing; Software House
Target Industries: Banking, Retail; Transportation; Medical
Target Applications: Accounting; General Business
Contacts:
Head of Marketing: Mike Backler
Head of Sales: Robert Davis
Head of Software: James Addleberger
Geographic Coverage: International
Year Established: 1952
Number of Employees: 1,800

NOAKES DATA COMMUNICATIONS, INC.
3330 Stovall
Irving, TX 75061
(214) 986-1151
Major Market: Component, Computer and Communications Equipment Manufacturing, Dealer/Distributor
Target Applications: Data Communications; Network Control; Data Collection
Net Sales: $1 Million - $5 Million (1981)
Contacts:
Head of Marketing: Kenneth Brown
Geographic Coverage: National
Year Established: 1886
Number of Employees: 30

NORTHEAST DATACOM, INC.
4 Tower Dr
Wallingford, CT 06492
(203) 265-3455
Major Market: Software House; Systems House (Commercial OEM); Data Services (Service Bureau)
Target Industries: Banking, Manufacturing; Thrift
Contacts:
Head of Marketing: James W. Blair Jr
Head of Customer Service: J. Smith
Geographic Coverage: Regional
Year Established: 1969
Number of Employees: 135

NORTHERN TELECOM, INC.
Cook Electric Division
6201 Oakton St
Morton Grove, IL 60053
(312) 967-6600
Major Market: Peripheral and Communications Equipment Manufacturing
Target Industries: Communications
Contacts:
Head of Marketing: W. Viviano
Head of Sales: G. Meyer
Head of Software: Frank Brennan
Geographic Coverage: International
Year Established: 1886
Number of Employees: 750

NORTHERN TELECOM, INC.
Electronic Office Systems Division
Data Park
P.O. Box 1222
Minneapolis, MN 55440
(612) 932-8656
Major Market: Computer, Terminal, Peripheral, Communications Equipment and Office Equipment Manufacturing, Software House
Target Industries: Manufacturing, Banking; Government; Education
Target Applications: Inquiry/Response; Data Entry; Distributed Data; RJE
Contacts:
Head of Marketing: R. W. Duthie
Head of Sales: S. T. Oppenheimer
Head of Customer Service: J.Vaughn
Geographic Coverage: International

NORTHERN TELECOM, INC.
Integrated Office Systems Division
1001 E. Arapaho Road
Richardson, TX 75081
(214) 234-5300
Major Market: Computer, Terminal, Peripheral and Communications Equipment Manufacturing, OEM (Computer Systems)
Target Industries: Fortune 1000; Government; Institutions
Target Applications: Lodging; Hospital; Financial
Contacts:
Head of Marketing: Bob Dyer
Head of Sales: Nelson Boyd
Head of Software: Bruce Stevens
Head of Engineering: Bob Davis
Head of Customer Service: Bob Wilder
Geographic Coverage: International
Year Established: 1975
Number of Employees: 7,500

NOVATION, INC.
20409 Prairie St.
Chatsworth, CA 91311
(213) 996-5060
Major Market: Terminal, Peripheral and Communications Equipment Manufacturing, OEM (Peripherals-Terminals); Systems House (Commercial OEM); Dealer/Distributor
Target Applications: Communications
Contacts:
Head of Marketing: Jerry Grimson
Head of Engineering: Alex Nagy
Head of Customer Service: Teddi Cook
Geographic Coverage: International
Year Established: 1967
Number of Employees: 125

NOVELL, INC.
1170 N. Industrial Park Dr.
Orem, UT 84057
(801) 226-8202
Major Market: Communications Equipment Manufacturing
Target Industries: Industry
Target Applications: Airline Reservation
Contacts:
Head of Marketing: Reid Clark
Head of Engineering: David Owen
Geographic Coverage: International
Year Established: 1980
Number of Employees: 35

NU DATA CORP.
32 Fairview Ave.
P.O. Box 125
Little Silver, NJ 07739
(201) 842-5757
Major Market: Communications Equipment Manufacturing
Target Industries: Telecommunications
Contacts:
Head of Engineering: Richard Previte
Geographic Coverage: International
Year Established: 1972
Number of Employees: 24

OFFICE EXPRESS, INC.
Top Down Systems Division
Suite 236
414 Hungerford Dr
Rockville, MD
(301) 251-9400
Major Market: Software House
Contacts:
Head of Sales: Skip Cashwell
Geographic Coverage: National
Year Established: 1980
Number of Employees: 4

OKI ELECTRONICS OF AMERICA, INC.
5901-B Peach Tree Dunwoody Road
Atlanta, GA 30093
(404) 399-5500
Major Market: Component, Computer, Peripheral, Communications Equipment and Office Equipment Manufacturing; OEM (Peripherals-Terminals); Software House, Systems House (Commercial OEM); Data Services (Service Bureau); Dealer/Distributor
Target Industries: Lodging
Contacts:
Head of Marketing: Steve Fields
Head of Sales: Dick Fisher
Geographic Coverage: International
Year Established: 1969
Number of Employees: 325

OMNIDATA
5717 Corsa Ave.
Westlake Village, CA 91362
(213) 991-5819
Major Market: Computer and Office Equipment Manufacturing
Target Industries: OA
Contacts:
Head of Marketing: George Greenspon
Head of Engineering: Raymond Lee
Geographic Coverage: National
Year Established: 1978
Number of Employees: 100

OPTELECOM
15940 Luanne Dr.
Gaithersburg, MD 20877
(301) 948-4232
Major Market: Communications Equipment Manufacturing
Target Industries: Government; OEM; Industrial
Contacts:
Head of Marketing: Fred Egglestron
Head of Engineering: Jim Coffman
Head of Customer Service: Suzie Clark
Geographic Coverage: National
Year Established: 1972
Number of Employees: 35

OPTICAL COMMUNICATIONS CORP.
950 Norwood Road
Silver Spring, MD 20904
(301) 924-2600
Major Market: Peripheral, Communications Equipment and Office Equipment Manufacturing; OEM (Peripherals-Terminals)
Target Industries: Military; Telecommunications
Target Applications: Video; Data/Voice
Contacts:
Head of Marketing: C. Wallach
Year Established: 1975
Number of Employees: 9

ORCHID TECHNOLOGY, INC.
4770 Westinghouse Road
Fremont, CA 94539
(415) 490-8556
Major Market: Peripheral and Communications Equipment Manufacturing
Contacts:
Head of Marketing: Bob Davi
Head of Sales: Bob Gronsky
Head of Software: Hao Nguyen
Head of Engineering: Dr. Le Bui
Head of Customer Service: Chris McGovern
Geographic Coverage: International
Year Established: 1982
Number of Employees: 32

ORION SOFTWARE, INC.
Suite 200
400-2 Totten Pond Road
Waltham, MA 02154
(617) 890-2223
Major Market: Software House
Net Sales: $1 Million - $5 Million (1981)
Contacts:
Head of Marketing: Jim Waite
Head of Software: Wilton Rooks
Geographic Coverage: International
Year Established: 1977
Number of Employees: 30

PACER SOFTWARE
1227 Pearl St.
La Jolla, CA 92037
(619) 454-0565
Major Market: Software House
Net Sales: Less than $100,000 (1982)
Geographic Coverage: International
Year Established: 1981
Number of Employees: 5

PACESETTER SYSTEMS, INC.
Suite 132
4141 Blue Lake Circle
Dallas, TX 75234
(214) 386-0941
Major Market: Software House
Target Industries: Banking
Contacts:
Head of Marketing: J. L. Atchley
Geographic Coverage: National
Year Established: 1976
Number of Employees: 15

PACIFIC SOFTWARE MANUFACTURING CO.
10th and Parker
Berkeley, CA 94710
(415) 540-5000
Major Market: Software House
Target Industries: Micro
Target Applications: DBMS; Communications; WP
Geographic Coverage: International
Year Established: 1981
Number of Employees: 20

PARAFAX CORP.
10 Melville Park Road
Melville, NY 11747
(516) 420-0055
Major Market: Communications Equipment and Office Equipment Manufacturing
Contacts:
Head of Marketing: Dennis Anderson
Head of Engineering: Ted Kekke
Head of Customer Service: Hiroshi Shimam
Year Established: 1977
Number of Employees: 350

PARADYNE CORP.
8550 Ulmerton Road
P.O. Box 2826
Largo, FL 33540
(813) 530-2000
Major Market: Computer, Terminal, Peripheral, Communications Equipment and Office Equipment Manufacturing, OEM (Computer Systems); OEM (Peripherals-Terminals); Software House, Dealer/Distributor
Target Industries: Banking; Engineering; Manufacturing, Retail
Target Applications: WP; OA; Data Entry; DBMS
Contacts:
Head of Marketing: Jerry T. Kendall
Head of Sales: John Mullane
Head of Software: Les Hyde
Head of Engineering: Ken Wall
Head of Customer Service: John Koehler
Geographic Coverage: International
Year Established: 1969
Number of Employees: 3,100

PARTICIPATION SYSTEMS, INC.
50 Cross St.
Winchester, MA 01890
(617) 729-1976
Major Market: Software House
Target Industries: Cross Industry
Target Applications: Electronic Mail; Computer Conferencing, Bulletin Boards
Contacts:
Head of Marketing: Mike Kashan
Head of Software: George Reinhart
Geographic Coverage: National
Year Established: 1970
Number of Employees: 10

PATHWAY DESIGN, INC.
177 Worcester St.
Wellesley, MA 02181
(617)-237-7722
Major Market: Software House
Geographic Coverage: National
Year Established: 1983
Number of Employees: 9

PEACHTREE SOFTWARE, INC.
3445 Peachtree Road N.E.
Atlanta, GA 30326
(404) 239-3000
Major Market: Software House
Target Applications: End User
Contacts:
Head of Marketing: Julian Duckett
Geographic Coverage: International
Year Established: 1977
Number of Employees: 145

PECA, INC.
582 Winks Lane
Bensalem, PA 19020
(215) 245-1550
Major Market: Communications Equipment Manufacturing; OEM (Computer Systems); Dealer/Distributor
Target Industries: Data Communication Systems; Cable
Target Applications: Communications Networking
Net Sales: $500,000 - $1 Million (1982)
Contacts:
Head of Engineering: James Gracie
Head of Customer Service: Joanne Fields
Geographic Coverage: International
Year Established: 1968
Number of Employees: 55

PENRIL CORP.
Data Communications Division
207 Perry Parkway
Gaithersburg, MD 20877
(301) 984-8225
Major Market: Component, Peripheral, Communications Equipment and Office Equipment Manufacturing; OEM (Computer Systems); OEM (Peripherals-Terminals); Software House, Systems House (Commercial OEM)
Target Industries: Data Communications, Computer
Target Applications: Communication
Contacts:
Head of Marketing: Dave Johnson
Head of Engineering: Les Query
Geographic Coverage: International
Year Established: 1968
Number of Employees: 1,000

PERCOM DATA CORP.
11220 Pagemill Road
Dallas, TX 75243
(214) 340-7081
Major Market: Peripheral and Communications Equipment Manufacturing; Software House
Contacts:
Head of Marketing: Bob Gerwe
Geographic Coverage: International
Year Established: 1976
Number of Employees: 150

PERKORME SYSTEMS, INC.
15530 Rockfield Blvd.
Building C
Irvine, CA 92714
(714) 855-3623
Major Market: Computer Manufacturing; Software House; Dealer/Distributor
Target Industries: Fortune 500
Contacts:
Head of Marketing: Rick Diederich
Head of Software: Chris Cole
Head of Engineering: Gary Story
Head of Customer Service: Pam Ridley
Geographic Coverage: International
Year Established: 1979
Number of Employees: 5

PERIPHERAL TECHNOLOGY, INC.
14794 N.E. 95th St.
Redmond, WA 98052
(206) 861-8891
Major Market: Component, Terminal and Communications Equipment Manufacturing; Software House
Net Sales: $500,000 - $1 Million (1982)
Contacts:
Head of Marketing: Richard Aydelotte
Head of Engineering: Al Williams
Geographic Coverage: International
Year Established: 1976
Number of Employees: 35

PERIPHONICS CORP.
4000 Veterans Memorial Highway
Bohemia, NY 11719
(516) 467-0900
Major Market: Computer, Peripheral and Communications Equipment Manufacturing, OEM (Computer Systems); Software House; Systems House (Commercial OEM)
Target Industries: Banking; Retail; Oil
Target Applications: Voice Entry
Contacts:
Head of Marketing: A. D. Flesner
Head of Engineering: George Cole
Geographic Coverage: International
Year Established: 1969
Number of Employees: 235

PERQ SYSTEMS
2600 Liberty St.
P.O. Box 2600
Pittsburgh, PA 15230
(412) 621-6250
Major Market: Computer Manufacturing
Target Industries: OEM
Target Applications: Personal Workstation
Net Sales: $1 Million - $5 Million (1981)
Contacts:
Head of Marketing: Frank Williams
Head of Sales: Kell Hickel
Head of Software: James Marshall
Head of Engineering: Brian Rosen
Head of Customer Service: Frank Sowinski
Geographic Coverage: International
Year Established: 1974
Number of Employees: 320

PERSONAL MINICOMPUTERS
475 Ellis St.
Mountain View, CA 94043
(415) 962-0220
Major Market: Computer, Terminal, Peripheral and Communications Equipment Manufacturing
Target Industries: Distribution; OEM Systems Integration; Government; End User
Target Applications: Installed Terminals
Contacts:
Head of Sales: Jack Decker
Geographic Coverage: International
Year Established: 1980
Number of Employees: 100

PERSYST, INC.
Suite A
15801 Rockfield Blvd.
Irvine, CA 92714
(714) 859-8671
Major Market: Peripheral and Communications Equipment Manufacturing; Software House
Contacts:
Head of Marketing: Ken Cruickshrank
Head of Software: Fred Berry
Head of Customer Service: Don Etter
Year Established: 1981
Number of Employees: 55

PHALO CORP.
Optical Systems Division
65 Moreland Road
Simi Valley, CA
(805) 522-3333
Major Market: Communications Equipment Manufacturing
Contacts:
Head of Sales: Jim Rodgers
Year Established: 1981

PHILIPS ELECTRONIC INSTRUMENTS, INC.
Division of N. American Philips
85 McKee Dr
Mahwah, NJ 07430
(201) 529-3800
Major Markets: Communications Equipment Manufacturing
Target Applications: Data Communications
Contacts:
Head of Marketing: B. Robert Feingold
Head of Sales: Robert C Joseph
Head of Software: Claud Cosard
Geographic Coverage: International
Year Established: 1934
Number of Employees: 200

PHOENIX DIGITAL CORP
2315 N. 35th Ave.
Phoenix, AZ 85009
(602) 278-3581
Major Market: Computer, Terminal and Communications Equipment

Manufacturing; OEM (Computer Systems), Process Automation Computers
Target Industries: Automotive; Chamical; Food; Rubber
Target Applications: Data Acquisition; Process Control; Monitoring; Man-Machine Interface
Contacts:
Head of Marketing: Gerald Trussell
Head of Software: Doug Hawkins
Head of Customer Service: J. Williams
Geographic Coverage: International
Year Established: 1977
Number of Employees: 30

PHONE 1, INC.

461 N. Mulford Road
Rockford, IL 61107
(815) 397-8110
Major Market: Communications Equipment Manufacturing; Software House
Target Industries: Fortune 1000; Communications
Target Applications: Data Communications
Net Sales: $1 Million - $5 Million (1983)
Contacts:
Head of Marketing: Roy Lane
Head of Software: Mark Koening
Head of Customer Service: Dan Yuccas
Geographic Coverage: National
Year Established: 1977
Number of Employees: 12

PICKLES & TROUT
P.O. Box 1206
Goleta, CA 93116
(805) 685-4641
Major Market: Software House
Geographic Coverage: International
Year Established: 1976
Number of Employees: 19

PITNEY BOWES
Walter Wheeler Dr.
Stamford, CT 069260700
(293) 356-5000
Major Market: Communications Equipment and Office Equipment Manufacturing; Mailing Equipment
Contacts:
Head of Marketing: Robert Lawrence
Head of Sales: George Bradbury
Head of Engineering: Fred Zucker
Head of Customer Service: Rowlin Farbaugh
Geographic Coverage: International
Year Established: 1920
Number of Employees: 20,000

PLANNING DATA SYSTEMS
Suite 1524
1601 Walnut St.
Philadelphia, PA 19103
(215) 665-1551
Major Market: Software House; Systems House (Commercial OEM)
Target Applications: Mapping
Contacts:
Head of Marketing: Robert Pallone
Geographic Coverage: National
Year Established: 1976
Number of Employees: 4

POLYGON SOFTWARE CORP.
363 7th Ave.
New York, NY 10001
(212) 563-5856
Major Market: Software House
Geographic Coverage: International
Year Established: 1983
Number of Employees: 10

PRAGMATRONICS, INC.
2015 10th St.
Boulder, CO 80302
(303) 444-2600
Major Market: Component and Communications Equipment Manufacturing; Data Services (Service Bureau)
Target Industries: Goverment; R&D; Laboratories; Warehouse
Contacts:
Head of Marketing: Walter Plywaski
Head of Engineering: Don Boyle
Year Established: 1979
Number of Employees: 7

PRENTICE CORP.
266 Caspian Dr.
Sunnyvale, CA 94086
(408) 734-9810
Major Market: Communications Equipment Manufacturing
Contacts:
Head of Marketing: James Butterworth
Head of Sales: Perry Lindberg
Geographic Coverage: International
Year Established: 1969
Number of Employees: 200

PRIME COMPUTER, INC.
Prime Park
Natick, MA 01760
(617) 655-8000
Major Market: Component, Computer, Terminal, Peripheral and Communications Equipment Manufacturing; OEM (Peripherals-Terminals); Software House
Contacts:
Head of Marketing: H.F. Enright
Head of Sales: W.L. Brubaker
Head of Software: Edward J. Christianson
Head of Engineering: Roland D. Pamper
Head of Customer Service: Ian Edmonds
Geographic Coverage: International
Year Established: 1972
Number of Employees: 5,900

PROCESSING INNOVATIONS, INC.
10471 S. Brookhurst
Anaheim, CA 92804
(714) 535-8161
Major Market: Communications Equipment Manufacturing
Target Industries: Wholesale
Target Applications: Remote/Direct Data Entry; Voice-Assisted Modem
Net Sales: $100,000 - $500,000 (1981)
Geographic Coverage: International
Year Established: 1975
Number of Employees: 5

PROGRAM RESOURCES, INC.
6001 Montrose Road
Suite 405
Rockville, MD 20852
(301) 984-9020
Major Market: Software House
Target Industries: Government
Geographic Coverage: National
Year Established: 1973
Number of Employees: 10

PROGRESSIVE SYSTEMS, INC.
80 Broad St.
New York, NY 10004
(212) 785-9200
Major Market: Communications Equipment Manufacturing; OEM (Computer Systems); Software House; Systems House (Commercial OEM)
Target Industries: Publishing; Banking; Brokerage
Target Applications: Message Switching; Data Communications
Net Sales: $500,000 - $1 Million (1981)
Contacts:
Head of Marketing: Thomas Flanagan
Head of Software: Vinnie Devita
Head of Engineering: Bill Weiher
Geographic Coverage: International
Year Established: 1979
Number of Employees: 25

PROLINK CORP.
5757 Central Ave.
Boulder, CO 80301
(303) 447-2800
Major Market: Computer and Communications Equipment Manufacturing; OEM (Computer Systems)
Contacts:
Head of Marketing: Lan Julius
Head of Sales: William T. Treadwell
Head of Software: Suresh C. Bazaj
Head of Engineering: Blayne Maring
Head of Customer Service: Carol Snell
Geographic Coverage: International
Year Established: 1980
Number of Employees: 91

PROTEON ASSOCIATES, INC.
24 Crescent St.
Waltham, MA 02154
(617) 894-1980
Major Market: Communications Equipment Manufacturing
Net Sales: $1 Million - $5 Million (1981)
Contacts:
Head of Engineering: Allen Marshall
Geographic Coverage: International
Year Established: 1972
Number of Employees: 35

PROTOCOL COMPUTERS, INC.
Suite 100
6150 Canoga Ave.
Woodland Hills, CA 91367
(818) 716-5500
Major Market: Communications Equipment Manufacturing
Target Industries: IBM Host
Contacts:
Head of Marketing: Addison Woods
Head of Sales: Steve Marks
Head of Engineering: Thomas Jefferson
Geographic Coverage: International
Year Established: 1980
Number of Employees: 91

PULSECOM
2900 Towerview Road
Herdon, VA 22071
(703) 471-2900
Major Market: Communications Equipment Manufacturing; Software House; Systems House (Commercial OEM)
Target Industries: Telecommunications; Railroad
Contacts:
Head of Marketing: Michael Vincour
Head of Engineering: James Britt
Geographic Coverage: National
Year Established: 1983
Number of Employees: 300

QUADSTAR CORP.
Suite 145
12700 Preston Road
Dallas, TX 75230
(214) 980-9801
Major Market: Software House; Systems House (Commercial OEM)
Target Industries: Financial, Retail
Net Sales: $1 Million - $5 Million (1981)
Contacts:
Head of Marketing: Ray Haymes
Head of Software: Tom Streff
Geographic Coverage: International
Year Established: 1979
Number of Employees: 40

QUALITY SOFTWARE, INC.
90 Lewis St.
Newton, MA 02158
(617) 965-2231
Major Market: Software House
Target Industries: Telecommunication
Target Applications: Telecommunication, Typesetting
Net Sales: $100,000 - $500,000 (1981)
Contacts:
Head of Marketing: Diane Seaman
Geographic Coverage: National
Year Established: 1980
Number of Employees: 3

QUASITRONICS, INC.
211 Vandale Dr.
Houston, PA 15342
(412) 745-2663
Major Market: Peripheral and Communications Equipment Manufacturing; OEM (Computer Systems); OEM (Peripherals-Terminals)
Target Industries: Manufacturing
Target Applications: Digital/Analog Acquisition
Contacts:
Head of Marketing: Victor Sulkowski
Head of Engineering: Lucian J. Spalla
Geographic Coverage: International
Year Established: 1971
Number of Employees: 50

RACAL-MILGO, INC.
8250 N.W. 27 Way
Fort Lauderdale, FL 33309

(305) 592-8600
Major Market: Terminal and Communications Equipment Manufacturing
Contacts:
Head of Marketing: Allan Mastandino
Head of Sales: Mat Kenny
Geographic Coverage: International
Year Established: 1955
Number of Employees: 3,500

RACAL-TELESYSTEMS, INC.
410 N Michigan Ave.
Chicago, IL 60611
(312) 329-0700
Major Market: Communications Equipment Manufacturing, Data Services (Service Bureau)
Target Industries: Goverment; Fortune 100
Contacts:
Head of Marketing: Duan Siebert
Head of Engineering: Dennis Miller
Geographic Coverage: Canada
Year Established: 1976
Number of Employees: 40

RACAL-VADIC
1525 McCarthy Blvd.
Milpitaes, CA 95035
(408) 744-0810
Major Market: Data Communications Equipment
Target Industries: End users; OEM Systems Integrators
Contacts:
Head of Marketing: Thomas J. McShane
Head of Sales: David Peters
Geographic Coverage: International
Year Established: 1969
Number of Employees: 900

RACEY COMPUTERS, LTD.
Suite 255
1855 W Katella
Orange, CA 92667
(714) 997-4950
Major Market: Software House
Contacts:
Head of Marketing: Chris Johnston
Geographic Coverage: International
Year Established: 1978
Number of Employees: 16

RADIAN CORP.
P.O. Box 9948
Austin, TX 78766
(512) 454-4797
Major Market: Component and Computer Manufacturing; OEM (Computer Systems); Software House; Dealer/Distributor
Target Industries: Energy
Contacts:
Head of Marketing: F. Scott Lagrone
Head of Sales: Ted Hudson
Geographic Coverage: International
Year Established: 1969
Number of Employees: 650

RAMYAN CORP.
15239 Springdale St.
Huntington Beach, CA 92649
(714) 895-5504
Major Market: Peripheral and Communications Equipment Manufacturing
Net Sales: $100,000 - $500,000 (1982)
Contacts:
Head of Marketing: Gardner De Spain
Geographic Coverage: International
Year Established: 1981
Number of Employees: 6

RAPICOM, INC.
7 Kingsbridge Road
Fairfield, NJ 07006
(201) 575-6010
Major Market: Communications Equipment Manufacturing; Dealer/Distributor
Contacts:
Head of Marketing: Gary Winkler
Head of Sales: John Sheahan
Head of Engineering: Paul Brobst
Geographic Coverage: International
Year Established: 1973
Number of Employees: 630

RAYCOM SYSTEMS, INC.
6395 Gunpark Dr
Boulder, CO 80301
(309) 530-1620
Major Market: Communications Equipment Manufacturing
Target Industries: Medical; Scientific; Robotics
Target Applications: Data Communications
Contacts:
Head of Marketing: Milan Mraz
Head of Engineering: Bill Gibson
Geographic Coverage: International
Year Established: 1981
Number of Employees: 35

RAYTHEON CO.
Raytheon Data Systems
115 Norwood Park S.
Norwood, MA 02062
(617) 762-6700
Major Market: Computer, Terminal, Peripheral, Communications Equipment and Office Equipment Manufacturing, OEM (Peripherals-Terminals), Dealer/Distributor
Target Industries: Transportation; Banking; Manufacturing, Distribution
Target Applications: Data Entry; Inventory; OA
Contacts:
Head of Marketing: Jon Hooper
Head of Software: Joan Jacobs
Geographic Coverage: International
Year Established: 1969
Number of Employees: 6,000

RCS (RIGEL COMPUTER SYSTEMS), INC.
2116 A. Walsh Ave
Santa Clara, CA 95050
(408) 727-7548
Major Market: Software House; Systems House (Commercial OEM); Dealer/Distributor
Target Applications: WP; Accounting
Net Sales: $100,000 - $500,000 (1981)
Contacts:
Head of Marketing: V. Sripathy
Geographic Coverage: California
Year Established: 1978
Number of Employees: 3

REAL-TIME MANAGEMENT, INC.
10 Middle St.
P.O. Box 1100
Bridgeport, CT 06601
(203) 367-8654
Major Market: Software House; Systems House (Commercial OEM); Data Services (Service Bureau)
Target Industries: Distribution; Manufacturing; Footwear; Medical
Contacts:
Head of Marketing: Warren Sisson
Geographic Coverage: National
Year Established: 1971
Number of Employees: 35

REDDING GROUP, INC.
909 Main St.
Ridgefield, CT 06877
(203) 329-8874
Major Market: Software House
Target Applications: Business Graphics, Communications
Contacts:
Head of Marketing: Lydia Fazio
Head of Customer Service: Phil Campbal
Geographic Coverage: International
Year Established: 1978
Number of Employees: 6

REIMS SYSTEMS, INC.
Suite 222
S. Michigan Ave.
Chicago, IL 60603
(312) 236-7727
Major Market: Software House; Systems House (Commercial OEM); Dealer/Distributor
Target Industries: Medical; Dental; Insurance, Legal
Target Applications: Accounting; Billing; Graphics
Net Sales: Less than $100,000 (1981)
Contacts:
Head of Marketing: Bill Maddocks
Head of Sales: Neil Long
Head of Software: Ronald R Remm
Head of Customer Service: Ed Becher
Geographic Coverage: National

REMOTE COMPUTING CORP.
Pear Systems Corp.
27 Briarbrae Road
Stanford, CT 06903
(203) 322-5583
Major Market: Software House
Target Industries: Financial
Target Applications: Management; Technical Analysis
Geographic Coverage: International
Year Established: 1966

RENEX CORP.
8901 Old Keene Mill Road
Springfield, VA 22150
(703) 451-2200
Major Market: OEM (Peripherals-Terminals)
Target Industries: IBM End Users
Target Applications: IBM 3270, System/34, System/36 and System/38 Users
Net Sales: $1 Million - $5 Million (1983)
Contacts:
Head of Marketing: O.M McCall
Head of Engineering: Raymond L. Gwinn
Head of Customer Service: Richard Simpson
Geographic Coverage: International
Year Established: 1975
Number of Employees: 27

RFL INDUSTRIES
Powerville Road
P.O. Box 239
Boonton, NJ 07005
(201) 334-3100
Major Market: Communications Equipment Manufacturing
Target Industries: Power Utilities
Contacts:
Head of Marketing: Bob Figler
Head of Sales: David Jenkins
Head of Engineering: Barry Kaufman
Geographic Coverage: International
Year Established: 1922
Number of Employees: 425

RSTI SYSTEMS SOFTWARE
1 Penn Plaza
New York, NY 10001
(212) 695-5001
Major Market: Software House; Systems House (Commercial OEM)
Target Industries: Manufacturing
Net Sales: $500,000 - $1 Million (1981)
Contacts:
Head of Software: Rose F. Amann
Geographic Coverage: National
Year Established: 1971
Number of Employees: 20

RUMBA ELECTRONICS
2535 Via Palma
Anaheim, CA 92801
(714) 995-6552
Major Market: Computer, Peripheral and Communications Equipment Manufacturing
Target Industries: DG OEM; DEC OEM
Net Sales: $1 Million - $5 Million (1981)
Contacts:
Head of Marketing: Frank Willams
Head of Engineering: Jose Ventura
Head of Customer Service: Bill Cantwell,
Geographic Coverage: International
Year Established: 1977
Number of Employees: 35

RIXON, INC.
2120 Industrial Pkwy
Silver Spring, MD 20904
(301) 622-2121
Major Market: Communications Equipment Manufacturing
Contacts:
Head of Marketing: Robert Chiaffredo
Head of Sales: Robert Arnold
Geographic Coverage: International
Year Established: 1953
Number of Employees: 640

ROCKWELL INTERNATIONAL CORP.
Semiconductor Products Division
4311 Jamboree Road
P.O. Box C

Newport Beach, CA 92660
(800) 854-8099
Major Market: Communications Equipment Manufacturing
Contacts:
Head of Marketing: D.W. Williams
Head of Sales: George Urbani
Head of Engineering: W.F. Krolikowski

ROCKWELL INTERNATIONAL CORP.
Switching Systems Division
1431 Opus Place
P.O. Box 1458
Downers Grove, IL 60515
(312) 960-8000
Major Market: Communications Equipment Manufacturing
Contacts:
Head of Marketing: Charles Young
Geographic Coverage: International
Year Established: 1979
Number of Employees: 1,000

ROLM CORP.
4900 Old Ironside Dr.
Santa Clara, CA 95050
(408) 988-2900
Major Market: Computer and Communications Equipment Manufacturing
Target Applications: Voice/Data Communications Net
Contacts:
Head of Marketing: Richard Moley
Head of Sales: Anthony Carollo
Geographic Coverage: International
Year Established: 1969
Number of Employees: 7,200

ROTELCOM DATA, INC.
930 Fairport Industrial Park
Fairport, NY 14450
(716) 381-3080
Major Market: Software House, Systems House (Commercial OEM)
Contacts:
Head of Software: Joseph Thuroff
Geographic Coverage: International
Year Established: 1978
Number of Employees: 90

RTCS (REAL-TIME COMPUTER SCIENCE) CORP.
P.O. Box 3000-886
Camarillo, CA 93010
(805) 482-0333
Major Market: Software House; Systems House (Commercial OEM); Dealer/Distributor
Target Applications: Real-Time System
Net Sales: $1 Million - $5 Million (1982)
Contacts:
Head of Marketing: Art Baker
Head of Software: Art Baker III
Geographic Coverage: International
Year Established: 1978
Number of Employees: 12

RSP CORP.
1533 E. Spruce
Olathe, KS 66061
(913) 782-8544
Major Market: Software House; Systems House (Commercial OEM); Data Services (Service Bureau); Dealer/Distributor
Net Sales: $1 Million - $5 Million (1982)
Contacts:
Head of Marketing: Forrest E Weddle
Head of Software: Randy Seager
Head of Engineering: Keith Constance
Geographic Coverage: International
Year Established: 1976
Number of Employees: 25

SANYO BUSINESS SYSTEMS CORP.
51 Joseph St.
Moonachie, NJ 07074
(201) 440-9300
Major Market: Computer, Terminal, Peripheral and Office Equipment Manufacturing, OEM (Peripherals-Terminals); Software House
Contacts:
Head of Marketing: N Yamashita
Head of Sales: Arthur Sheber
Head of Customer Service: Mike Zajek
Geographic Coverage: International

SCHLESINGER INSTRUMENT CO.
9115 Camargo Road
Cincinnati, OH 45243
(513) 561-6803
Major Market: Component and Communications Equipment Manufacturing; OEM (Computer Systems)
Net Sales: $100,000 - $500,000 (1981)
Contacts:
Head of Marketing: Mark Schneider
Head of Software: G. L. Schneider
Geographic Coverage: International
Year Established: 1968
Number of Employees: 12

SCIENTIFIC ATLANTA, INC.
One Technology Parkway
P.O. Box 105600
Atlanta, GA 30348
(404) 449-2000
Major Market: Communications Equipment Manufacturing; Software House
Target Industries: Cable; Broadcasting; Business Telecommunications
Contacts:
Head of Marketing: Del Bothof
Head of Engineering: Dr. Guy Beckley
Geographic Coverage: International
Year Established: 1952
Number of Employees: 5,000

SCIENTIFIC DATA SYSTEMS, INC.
344 Main St.
Venice, CA 90291
(213) 390-8673
Major Market: Computer and Communications Equipment Manufacturing; Software House
Target Industries: Legal, Medical; Accounting; Trash Collection
Target Applications: WP; Legal Time and Billing; Temporary Help
Contacts:
Head of Software: William Weldon
Head of Engineering: Jack M. Mitchell
Geographic Coverage: National
Year Established: 1977
Number of Employees: 50

SCIENTIFIC RADIATION CORP.
1201 San Antonio Road
Mountain View, CA 94043
(415) 965-0911
Major Market: Communications Equipment Manufacturing
Contacts:
Head of Sales: James A. Larzara
Geographic Coverage: National
Year Established: 1975
Number of Employees: 50

SCITEC CORP.
850 Aquidneck Ave.
Middletown, RI 02840
(401) 849-4353
Major Market: Communications Equipment Manufacturing
Target Industries: Manufacturing; Banking; Time-Sharing, Airline
Net Sales: $1 Million - $5 Million (1982)
Contacts:
Head of Marketing: Gerald Olson
Geographic Coverage: International
Year Established: 1978
Number of Employees: 90

SEISCORP, INC.
5311 S. 122 E. Ave.
P.O. Box 1590
Tulsa, OK 74145
(918) 627-3330
Major Market: Communications Equipment Manufacturing
Target Industries: Telephone; Petrochemical; Data Collection
Contacts:
Head of Marketing: Edward Crossland
Geographic Coverage: International
Number of Employees: 350

SENSIBLE SOFTWARE, INC.
6619 Perham Dr.
West Bloomfield, MI 48033
(313) 399-8877
Major Market: Software House
Target Industries: Apple Users
Net Sales: $500,000 - $1 Million (1982)
Contacts:
Head of Marketing: Tracy Shelly
Head of Software: Roger Tuttleman
Head of Engineering: Charles Hartley
Head of Customer Service: Joe Emery
Geographic Coverage: International
Year Established: 1978
Number of Employees: 10

SGS SEMICONDUCTORS, CORP.
1000 E. Bell Road
Phoenix, AZ 85022
(602) 867-6100
Major Market: Component, Computer, Communications Equipment and Office Equipment Manufacturing; OEM (Peripherals-Terminals); Software House, Systems House (Commercial OEM)
Target Industries: Communications; Industrial, Business; OA
Contacts:
Head of Marketing: Dave Hage
Head of Software: Bob Lindstrom
Head of Engineering: Jean Claude Monney
Head of Customer Service: Rubin Sonnino
Geographic Coverage: International
Year Established: 1957
Number of Employees: 600

SHAFFSTALL CORP.
7901 E. 86th St.
Indianapolis, IN 46256
(317) 842-2077
Major Market: Communications Equipment Manufacturing
Target Industries: Data Communications, Printing
Contacts:
Head of Marketing: Tim Shaffstall
Head of Sales: Anthony Shaffstall
Geographic Coverage: International
Year Established: 1973
Number of Employees: 40

SHERWOOD DIGITAL ELECTRONICS
2252 S. 3800 W.
Salt Lake City, UT 84119
(801) 972-3453
Major Market: Terminal, Peripheral and Communications Equipment Manufacturing
Target Industries: IBM System/34, System/36 and Compatibles
Net Sales: $1 Million - $5 Million (1983)
Contacts:
Head of Marketing: John T. Lever Jr.
Geographic Coverage: International
Number of Employees: 11

SIDEREAL CORP.
9600 S.W. Barnes Road
Portland, OR 97225
(503) 297-5531
Major Market: Terminal and Communications Equipment Manufacturing
Contacts:
Head of Marketing: James Miller
Head of Customer Service: Robert Blake
Geographic Coverage: National
Year Established: 1971
Number of Employees: 160

SIEMENS COMMUNICATIONS SYSTEMS
Office Systems Group
240 E. Palais Road
Anaheim, CA 92805
(714) 991-9700
Major Market: Terminal, Peripheral and Office Equipment Manufacturing
Target Industries: Communications
Target Applications: Office Communication
Contacts:
Head of Marketing: Mike Kurz
Geographic Coverage: National
Year Established: 1982
Number of Employees: 750

SIERRA RESEARCH CORP.
455 Cayuga Dr.

P.O. Box 222
Buffalo, NY 14225
(716) 631-6800
Major Market: Terminal, Peripheral and Communications Equipment Manufacturing
Target Industries: Manufacturing
Target Applications: Data Entry
Contacts:
Head of Marketing: Roy H. Hobson
Head of Software: Edwin L. Hill
Head of Engineering: Mike Rupp
Head of Customer Service: Marilyn Euler
Geographic Coverage: International
Year Established: 1969
Number of Employees: 100

SIEDON, INC.
1945 Gallows Road
Vienna, VA 22180
(703) 448-8600
Major Market: Communications Equipment Manufacturing; OEM (Computer Systems); OEM (Peripherals-Terminals); Software House; Systems House (Commercial OEM); Data Services (Service Bureau); Dealer/Distributor
Target Industries: Law Enforcement; Insurance; Mass Transit; Professional Services
Target Applications: Dispatching
Net Sales: $1 Million - $5 Million (1981)
Contacts:
Head of Marketing: Paul K. Wormell
Head of Sales: Larry Claussen
Head of Software: Law Henneke
Head of Customer Service: Thomas Castor
Geographic Coverage: National
Year Established: 1971
Number of Employees: 75

SMART, INC.
25 Cricket Lane
Wilton, CT 06897
(203) 762-3279
Major Market: Software House; Data Services (Service Bureau)
Target Industries: Retail
Target Applications: POS
Net Sales: $1 Million - $5 Million (1981)
Contacts:
Head of Sales: Cletus Smith
Head of Software: Emile Collins
Geographic Coverage: International
Year Established: 1969
Number of Employees: 37

SMITH EDUCATIONAL ENGINEERING SERVICES, INC.
P.O. Box 244
Arlington Heights, IL 60006
(312) 394-3513
Major Market: Software House
Contacts:
Head of Marketing: George Tucker
Geographic Coverage: National
Year Established: 1979
Number of Employees: 25

SOFTWARE & COMMUNICATION CONCEPTS, INC.
Suite 360
11211 Katy Freeway
Houston, TX 77079
(713) 464-8131
Major Market: Communications Equipment Manufacturing; Software House; Systems House (Commercial OEM)
Net Sales: $500,000 - $1 Million (1981)
Contacts:
Head of Engineering: David Deml
Geographic Coverage: National
Year Established: 1974
Number of Employees: 12

SOFTWARE AG OF NORTH AMERICA, INC.
11800 Sunrise Valley Dr.
Reston, VA 22091
(703) 860-5050
Major Market: Software House
Target Industries: DBMS; On-Line Application Development Languages; TP Monitor
Net Sales: $25 Million - $100 Million (1983)
Contacts:
Head of Marketing: Donald M. France
Geographic Coverage: International
Year Established: 1973
Number of Employees: 250

SOFTWARE CLEARING HOUSE
771 Neeb Road
P.O. Box 36206
Cincinnati, OH 45236
(513) 451-8742
Major Market: Software House
Target Industries: NCR users
Net Sales: $1 Million - $5 Million (1981)
Contacts:
Head of Marketing: Tom Ivers
Head of Sales: Jack Ivers
Head of Customer Service: William Ivers
Geographic Coverage: International
Year Established: 1979
Number of Employees: 30

SOFTWARE DEVELOPMENT & MAINTENANCE, INC.
134 Spring Ave.
P.O. Box 969
Fuquay-Varina, NC 27526
(919) 552-5862
Major Market: OEM (Computer Systems); OEM (Peripherals-Terminals); Software House; Systems House (Commercial OEM)
Target Industries: Banking; Manufacturing
Target Applications: ATM; Electronic Mail Transfer; POS, EFT
Net Sales: $1 Million - $5 Million (1981)
Contacts:
Head of Marketing: David W. Leham
Head of Software: P. E. Truslove
Head of Customer Service: Rick Carpenter
Geographic Coverage: International
Year Established: 1980
Number of Employees: 13

SOFTWARE DEVELOPMENT CORP.
Suite 2H
270 Amity Road
Woodbridge, CT 06525
(203) 397-0500
Major Market: Software House
Target Industries: Retail Pharmacy; Medical; Legal; Financial
Target Applications: Remote Data Access; Loan Accounting
Contacts:
Head of Software: Terry Gibeau
Geographic Coverage: International
Year Established: 1979
Number of Employees: 9

SOFTWARE DYNAMICS
Suite G
2111 W. Crescent
Anaheim, CA 92801
(714) 535-4760
Major Market: OEM (Peripherals-Terminals); Software House
Contacts:
Head of Engineering: Ira C. Baxter
Geographic Coverage: International
Year Established: 1977
Number of Employees: 5

SOFTWARE MANAGEMENT SYSTEMS, INC.
84 Inverness Circle E.
Englewood, CO 80112
(303) 741-3179
Major Market: Software House; Systems House (Commercial OEM)
Target Industries: Construction; Engineering; General Industry
Target Applications: Accounting; Financial and Project Management
Net Sales: $1 Million - $5 Million (1981)
Contacts:
Head of Marketing: Bill Beck
Head of Sales: Michael Sutkowski
Head of Customer Service: Robert Otten
Geographic Coverage: National
Year Established: 1976
Number of Employees: 30

SOFTWARE RESULTS CORP.
2867 Silver Dr.
Columbus, OH 43211
(614) 431-3084
Major Market: Communications Equipment Manufacturing; OEM (Computer Systems)
Target Applications: Data Communication
Net Sales: $500,000 - $1 Million (1981)
Contacts:
Head of Marketing: E. J. Sadlowski
Head of Software: S. K. Wilson
Head of Engineering: M. J. Himes

Remember
to mention the
Computerworld Buyer's Guide
when contacting
vendors.

COMPUTERWORLD
BUYER'S GUIDE

Vendors

Geographic Coverage: International
Year Established: 1975
Number of Employees: 25

THE SOFTWARE STORE
706 Chippewa Square
Marquette, MI 49855
(906) 226-7622
Major Market: Software House
Target Industries: CP/M Computer Market
Target Applications: POS
Contacts:
Head of Marketing: Terry L. Horton
Geographic Coverage: International
Year Established: 1977
Number of Employees: 5

SOFTWARE SYSTEMS, INC.
1907 Wiliam St.
P.O. Box 1766
Jefferson City, MO 65101
(314) 635-5852
Major Market: Software House
Net Sales: $100,000 - $500,000 (1981)
Contacts:
Head of Marketing: Ewin Barnett
Geographic Coverage: International
Year Established: 1980
Number of Employees: 3

SOFTWORKS, INC.
7801 Old Branch Ave.
Clinton, MD 20735
(301) 868-4221
Major Market: Software House
Net Sales: $500,000 - $1 Million (1982)
Contacts:
Head of Marketing: Donald Wood
Head of Software: Robert Fitzgerald
Head of Engineering: Claude Kinsey
Geographic Coverage: International
Year Established: 1977
Number of Employees: 12

SOLID STATE SYSTEMS, INC.
1900 Oak Industrial Blvd.
Marietta, GA 30067
(404) 952-8401
Major Market: Communications Equipment Manufacturing
Target Industries: Hospitals; School Systems; Manufacturing
Target Applications: Energy Management
Contacts:
Head of Marketing: Jason Schloss
Head of Engineering: Joseph McKeaney
Geographic Coverage: National
Year Established: 1974
Number of Employees: 100

SONEX, INC.
931-939 E. Lycoming St.
Philadelphia, PA 19124
(215) 533-4900
Major Market: Communications Equipment Manufacturing
Target Industries: Industrial; Military
Net Sales: $1 Million - $5 Million (1981)
Contacts:
Head of Sales/Marketing: Don Bucchi
Head of Engineering: James Benson
Geographic Coverage: International
Year Established: 1959
Number of Employees: 26

SOUTHERN COMPUTER SYSTEMS, INC.
2304 12th Ave. N
P.O. Box 55473
Birmingham, AL 35255
(205) 933-1659
Major Market: Computer Manufacturing; OEM (Computer Systems); Software House; Data Services (Service Bureau); Dealer/Distributor
Target Applications: Data Entry
Net Sales: $500,000 - $1 Million (1981)
Contacts:
Head of Marketing: Paul Scalise
Head of Software: Mark Sumner
Geographic Coverage: International
Year Established: 1979
Number of Employees: 7

SOUTHWESTERN DATA SYSTEMS, INC.
Suite E
10761 Woodside Ave.
Santee, CA 92071
(619) 562-3670
Major Market: Software House
Target Applications: General Business; Educational; Utilities; Communications
Net Sales: $500,000 - $1 Million (1981)
Geographic Coverage: International
Year Established: 1978
Number of Employees: 11

SPARTACUS COMPUTERS, INC.
5 N. Park Dr.
Bedford, MA 01730
(617) 275-4220
Major Market: OEM (Peripherals-Terminals); Software House
Contacts:
Head of Marketing: Paul Inefield
Head of Sales: John Roderick
Head of Software: Michael Casely
Head of Engineering: Michael Oyer
Geographic Coverage: International
Year Established: 1981
Number of Employees: 30

SPERRY CORP.
Township Line & Union Meeting Road
P.O. Box 500
Blue Bell, PA 19424
(215) 542-4011
Major Market: Component, Computer, Terminal, Peripheral and Communications Equipment Manufacturing; OEM (Computer Systems); Software House
Target Industries: Manufacturing; Public Sector; Distribution; Airline
Net Sales: $100,000 - $500,000 (1981)
Contacts:
Head of Marketing: Joseph Clasullo
Geographic Coverage: International
Year Established: 1962
Number of Employees: 48,000

STANDARD DATA CORP
1540 Broadway
New York, NY 10036
(212) 586-3100
Major Market: Communications Equipment Manufacturing; Software House; Data Services (Service Bureau)
Target Industries: Pension and Welfare Funds; Associations, Unions
Net Sales: $1 Million - $5 Million (1981)
Geographic Coverage: New York
Year Established: 1959
Number of Employees: 63

STARNET DATA SYSTEMS
1331 W. 7th Ave.
Denver, CO 80223
(303) 935-3586
Major Market: Communications Equipment Manufacturing
Year Established: 1983
Number of Employees: 4

START SYSTEMS
Suite 610
1120 Ave. of the Americas
New York, NY 10036
(212) 398-1717
Major Market: Software House; Systems House (Commercial OEM)
Target Industries: Retail; Nonprofit; Banking; Insurance
Net Sales: $1 Million - $5 Million (1981)
Contacts:
Head of Software: Ira Dodelman
Geographic Coverage: International
Year Established: 1979
Number of Employees: 20

STEARN COMPUTER SYSTEMS
10901 Bren Road E.
P.O. Box 9364
Minneapolis, MN 55440
(612) 936-2000
Major Market: Computer and Communications Equipment Manufacturing
Target Industries: Fortune 1000; Small Business
Target Applications: OA
Contacts:
Head of Marketing: Bob Gallagher
Head of Engineering: John Schinas
Head of Customer Service: Kathy Forde
Geographic Coverage: International
Year Established: 1982
Number of Employees: 110

STRATUS COMPUTER, INC.
17 Strathmore Road
Natick, MA 01760
(617) 653-1466
Major Market: Computer and Communications Equipment Manufacturing; OEM (Peripherals-Terminals); Software House
Target Applications: Transaction Processing; Networking
Contacts:
Head of Marketing: John Morgridge
Head of Sales: Jim Austin
Head of Software: Bob Freiburghouse
Head of Engineering: G. Hendrie
Head of Customer Service: John Walsh
Geographic Coverage: International
Year Established: 1980
Number of Employees: 250

SUMMA FOUR
2456 Brown Ave.
Manchester, NH 03103
(603) 625-4050
Major Market: Communications Equipment Manufacturing
Target Industries: Hospitality; Commercial Business
Target Applications: Telephone Management
Contacts:
Head of Marketing: John A. Belon
Head of Sales: Nathan R. Cyr
Head of Software: Helen Summers
Head of Engineering: John T. Boatwright
Geographic Coverage: International
Year Established: 1978
Number of Employees: 100

SUPERSOFT, INC.
P.O. Box 1628
Champaign, IL 61820
(217) 359-2112
Major Market: Software House
Net Sales: $500,000 - $1 Million (1981)
Contacts:
Head of Marketing: Stephen Hegler
Head of Sales: Rita Ahern
Head of Software: Richard Belocca
Head of Engineering: Mike Pagels
Head of Customer Service: Mike McIntosh
Geographic Coverage: International
Year Established: 1978
Number of Employees: 25

SYMALTA SYSTEMS
3114 Broadway
Astoria, NY 11106
(212) 728-5700
Major Market: Computer and Communications Equipment Manufacturing; Software House
Target Industries: Data Communications; OEM; Single-Card Computer; Customized Manufacturers
Target Applications: Data Communications Conversion
Contacts:
Head of Marketing: Gina Mantoza
Head of Engineering: Frank Colombos
Year Established: 1979
Number of Employees: 17

SYNTREX, INC.
246 Industrial Way W
Eatontown, NJ 07724
(201) 542-1500
Major Market: Communications Equipment and Office Equipment Manufacturing; Software House
Target Industries: Legal; Manufacturing
Target Applications: Storage; Text Processing; Retrieval
Contacts:
Head of Marketing: Lou Turkaly
Head of Sales: Barry Ross
Head of Software: Phil Sheurin
Head of Engineering: Joe Jones
Head of Customer Service: Ed Smith

Geographic Coverage: International
Year Established: 1976
Number of Employees: 450

SYSCOM, INC.
470-B Lakeside Dr.
Sunnyvale, CA 94086
(408) 736-7320
Major Market: Communications Equipment Manufacturing
Target Applications: Data Communications
Contacts:
Head of Marketing: Para Suramen
Geographic Coverage: California
Year Established: 1976
Number of Employees: 5

SYSTAR CORP.
Suite 208
1762 Technology Dr.
San Jose, CA 95110
(408) 280-7066
Major Market: Communications Equipment Manufacturing; OEM (Computer Systems); Software House; Systems House (Commercial OEM); Dealer/Distributor
Target Industries: General Business
Target Applications: Protocol Conversion; Electronic Mail; WP
Net Sales: $500,000 - $1 Million (1981)
Contacts:
Head of Marketing: Dorian Filippini
Head of Software: Steven Jachowski
Geographic Coverage: International
Year Established: 1977
Number of Employees: 24

SYSTEM & SOFTWARE, INC.
Suite 500
1319 Butterfield Road
Downers Grove, IL 60515
(312) 960-1161
Major Market: Software House; Systems House (Commercial OEM)
Target Applications: Industrial Control
Net Sales: $500,000 - $1 Million (1981)
Contacts:
Head of Marketing: Jack Pon
Head of Engineering: John Fu
Head of Customer Service: Nancy Cummins
Geographic Coverage: National
Year Established: 1977
Number of Employees: 10

SYSTEMS RESOURCES CORP.
121 W. Elmwood Place
Minneapolis, MN 55416
(612) 831-0125
Major Market: Software House; Systems House (Commercial OEM)
Target Industries: General Business
Target Applications: DBMS
Net Sales: $1 Million - $5 Million (1981)
Contacts:
Head of Marketing: Charles Lantzke
Geographic Coverage: International
Year Established: 1975
Number of Employees: 45

THE SYSTEMS CENTER
2988 Campus Dr.
San Mateo, CA 94403
(415) 345-0611
Major Market: Software House; Systems House (Commercial OEM)
Target Applications: IBM SNA Data Communications; DDP
Net Sales: $100,000 - $500,000 (1982)
Contacts:
Head of Marketing: P. G. Schott
Head of Software: R. J. Ordahl
Head of Engineering: W. N. Creech
Head of Customer Service: R. A. Chang
Year Established: 1981
Number of Employees: 45

THE SYSTEMS CENTER, INC.
1320 Greenway Dr.
Irving, TX 75062
(415) 345-0611
Major Market: Software House; Systems House (Commercial OEM)
Contacts:
Head of Marketing: Peter Shott
Head of Software: Norm Creech
Geographic Coverage: National
Year Established: 1981
Number of Employees: 18

SYSTEMS STRATEGIES, INC.
225 W. 34th St.
New York, NY 10001
(212) 279-8400
Major Market: Software House; Systems House (Commercial OEM)
Target Industries: Banking; Brokerage; Terminal Manufacturing
Net Sales: $1 Million - $5 Million (1981)
Contacts:
Head of Sales: Ralph Caffaro
Geographic Coverage: National
Year Established: 1976
Number of Employees: 82

SYTEK, INC.
1225 Charleston Road
Mountain View, CA 94043
(415) 966-7300
Major Market: Component, Computer, Communications Equipment and Office Equipment Manufacturing; OEM (Computer Systems); Software House; Dealer/Distributor
Target Industries: Government; Universities; Fortune 100; Hospitals
Target Applications: DDP; Networks
Contacts:
Head of Marketing: George Klaus
Head of Sales: Rhonda St. John
Head of Software: Kennety Biba
Head of Engineering: Zvi Alon
Geographic Coverage: International
Year Established: 1979
Number of Employees: 250

TAFT CONSULTING, INC.
161 William St.
New York, NY 10038
(212) 964-3636
Major Market: Software House; Systems House (Commercial OEM)
Target Industries: Government; Medical; Wholesale Distributors; Communications
Target Applications: Electronic Mail; Text Retrieval; WP; Message Switching
Net Sales: $1 Million - $5 Million (1981)
Contacts:
Head of Marketing: Russ Laubenheimer
Geographic Coverage: International
Year Established: 1971
Number of Employees: 10

TANDEM COMPUTERS, INC.
19333 Vallco Pkwy.
Cupertino, CA 95014
(408) 725-6000
Major Market: Computer, Terminal and Communications Equipment Manufacturing; Software House
Contacts:
Head of Marketing: David Mackie
Head of Sales: Jerry Peterson
Head of Engineering: Larry Laurich
Head of Customer Service: Jerry Everett
Geographic Coverage: International
Year Established: 1974
Number of Employees: 4,400

TANDY CORP.
Radio Shack
1500 One Tandy Center
Fort Worth, TX 76102
(817) 390-3011
Major Market: Computer, Terminal, Peripheral and Communications Equipment Manufacturing; OEM (Computer Systems); Software House; Dealer/Distributor
Target Industries: Legal; Medical; Real Estate; General Business
Contacts:
Head of Marketing: Ron Siegel
Head of Engineering: John Patterson
Geographic Coverage: International
Year Established: 1921
Number of Employees: 30,000

TAU-TRON, INC.
27 Industrial Ave.
Chelmsford, MA 01824
(617) 256-5013
Major Market: Communications Equipment Manufacturing
Target Industries: Fortune 1000; Telecommunications
Contacts:
Head of Marketing: William Rollins
Head of Engineering: Philip Gendron
Year Established: 1968
Number of Employees: 220

T-BAR, INC.
141 Danbury Road
P.O. Box T
Wilton, CT 06897
(203) 834-8227
Major Market: Component and Communications Equipment Manufacturing
Target Industries: Banking; Insurance; Transportation; Manufacturing
Target Applications: Data Communications; Switching
Contacts:
Head of Marketing: Walter Johnson
Head of Sales: Thomas J. Intorlind
Head of Software: Ray Mazurek
Head of Engineering: Keith Wells
Head of Customer Service: Joseph Swistak
Geographic Coverage: International
Year Established: 1969
Number of Employees: 500

TECHLAND SYSTEMS, INC.
25 Waterside Plaza
New York, NY 10010
(212) 684-7788
Major Market: Communications Equipment Manufacturing; Software House
Target Applications: Communications
Net Sales: $1 Million - $5 Million (1983)
Contacts:
Head of Marketing: Richard Clowes
Geographic Coverage: International
Year Established: 1982
Number of Employees: 20

TECMEDIC, INC.
2901 Druid Park Dr.
Technology Center
Baltimore, MD 21216
(301) 669-1400
Major Market: Computer Manufacturing; Software House
Target Industries: Education; Small Business; Industrial
Target Applications: Training; Office
Net Sales: $1 Million - $5 Million (1981)
Geographic Coverage: National
Year Established: 1976
Number of Employees: 15

TECNTRAN INDUSTRIES, INC.
200 Commerce Dr.
Rochester, NY 14623
(716) 334-6640
Major Market: Peripheral and Communications Equipment Manufacturing
Target Industries: Banking; Telecommunications; Research; Military
Target Applications: Data Storage; Message Recording
Net Sales: $1 Million - $5 Million (1982)
Contacts:
Head of Marketing: Frank Alt
Head of Sales: Ray Smith
Head of Engineering: Robert Wagner
Geographic Coverage: International
Year Established: 1968
Number of Employees: 120

TECMAR, INC.
6225 Cochran Road
Cleveland, OH 44139
(216) 349-0600
Major Market: Computer, Peripheral and Communications Equipment Manufacturing
Target Industries: Personal Computing; Scientific; Manufacturing
Target Applications: Industrial Control
Contacts:
Head of Marketing: Carolyn Alpert
Head of Sales: John Brandon
Geographic Coverage: International
Year Established: 1974
Number of Employees: 390

Vendors

TEK-COM, INC.
Suite C103
1667 O'Toole Ave.
San Jose, CA 95131
(408) 263-7400
Major Market: Communications Equipment Manufacturing
Contacts:
Head of Marketing: Joseph Gaynor
Head of Sales: Susan Stillwell
Head of Customer Service: Becky Herrington
Geographic Coverage: International
Year Established: 1983
Number of Employees: 10

TEKELEC, INC.
2932 Wilshire Blvd.
Santa Monica, CA 90403
(213) 829-7305
Major Market: Communications Equipment Manufacturing; Software House
Target Industries: Data Communication Engineers; Data Network Users
Target Applications: X.25 Packet Switching; SNA/SDLC
Contacts:
Head of Marketing: Michael Lee
Head of Sales: Robert Hess
Head of Software: Adrian Warren
Head of Engineering: Stephen Groppe
Head of Customer Service: Anders Hultin
Geographic Coverage: International
Year Established: 1971
Number of Employees: 19

TEKNEKRON INFO SWITCH
1784 Firman Dr.
Richardson, TX 75081
(214) 644-0570
Contacts:
Head of Sales/Marketing: Bill Sequin
Head of Engineering: Jane Swiseton
Year Established: 1983

TEKTRONIX, INC.
P.O. Box 500
Beaverton, OR 97077
(503) 627-7111
Major Market: Component, Computer, Terminal, Peripheral and Communications Equipment Manufacturing; Software House
Target Industries: Engineering; Manufacturing; Television
Target Applications: Test/ Measurement; Graphics
Geographic Coverage: International
Year Established: 1946
Number of Employees: 22,000

TELAUTOGRAPH CORP.
6700 Reliance Ave.
Los Angeles, CA 90045
(213) 641-3660
Major Market: Dealer/Distributor
Target Industries: Medical; Legal; Oil; Manufacturing
Contacts:
Head of Marketing: Frank May
Head of Engineering: Raghu Rai
Geographic Coverage: National
Year Established: 1969
Number of Employees: 1,866

TELCO RESEARCH CORP.
1816 Division St.
Nashville, TN 37203
(615) 383-2251
Major Market: Software House
Target Industries: Banking; Manufacturing; Insurance; Brokerage
Target Applications: Telecommunications; Textbooks; Optimization; Accounting
Contacts:
Head of Marketing: Jacqueline Shrago
Head of Sales: Steve Waterman
Head of Software/Engineering: Ann Caldwell
Head of Customer Service: Harry Williams
Geographic Coverage: National
Year Established: 1975
Number of Employees: 48

TELE/RESOURCES
Northway 10 Executive Park
Ushers Road
Ballston, NY 12019
(518) 877-8571
Major Market: Component and Communications Equipment Manufacturing
Target Industries: Small- to Medium-Size Businesses
Target Applications: Offices; Legal Firms
Contacts:
Head of Marketing/Sales: Gene Daly
Head of Software: Peter Hayes
Head of Engineering: Don Welch
Year Established: 1969
Number of Employees: 100

TELESYTE TECHNOLOGIES, INC.
Remark Datacom Division
4 Sycamore Dr.
Woodbury, NY 11797
(516) 367-3806
Major Market: Communications Equipment Manufacturing
Target Applications: Data Communications
Net Sales: $100,000 - $500,000 (1982)
Contacts:
Head of Sales/Marketing: Blossom Kramer
Geographic Coverage: International
Year Established: 1978
Number of Employees: 10

TELECOM TECHNOLOGIES
3072 E. G St.
Ontario, CA 91764
(800) 245-9816
Major Market: Communications Equipment Manufacturing
Target Industries: Airline; Banking; Insurance, Telemarketing
Target Applications: Reservations; Catalogue Sales; Ticketing; Customer Service
Contacts:
Head of Marketing: Gwen Blaikkan
Head of Sales: Paul Wakefield
Head of Engineering: John Locke
Head of Customer Service: Russ Hager
Year Established: 1982
Number of Employees: 90

TELEPAGE CORP.
11 Rivington St.
New York, NY 10002
(212) 477-8802
Major Market: Communications Equipment Manufacturing
Target Industries: General and International Business
Target Applications: Communications
Contacts:
Head of Marketing: Ron Mullins
Year Established: 1980
Number of Employees: 10

TELEPHONE SOFTWARE CONNECTION, INC.
P.O. Box 6548
Torrance, CA 90504
(213) 516-8430
Major Market: Software House; Data Services (Service Bureau)
Target Applications: Communications
Geographic Coverage: International
Year Established: 1979

TELEPROCESSING PRODUCTS, INC.
4565 E. Industrial St.
Building 7K
Simi Valley, CA 93063
(805) 522-9149
Major Market: Communications Equipment Manufacturing
Contacts:
Head of Marketing: Richard Latch
Geographic Coverage: International
Year Established: 1978
Number of Employees: 100

TELEVIDEO SYSTEMS, INC.
1170 Morse Ave.
Sunnyvale, CA 94086
(408) 745-7760
Major Market: Computer and Terminal Manufacturing
Target Industries: Small Business; Home/Hobby
Contacts:
Head of Marketing: R. DuBridge
Head of Sales: Mark Siegel
Geographic Coverage: International
Year Established: 1977
Number of Employees: 525

TELLABS, INC.
4951 Indiana Ave.
Lisle, IL 60532
(312) 969-8800
Major Market: Communications Equipment Manufacturing
Contacts:
Head of Sales: Chris Cooney
Head of Engineering: Peter Fuss
Geographic Coverage: International
Year Established: 1975
Number of Employees: 1,000

TELMAC, INC.
770 Pivet Court
Sunnyvale, CA 94086
(408) 737-1534
Major Market: Communications Equipment Manufacturing
Target Industries: General Industry; Universities
Target Applications: Data Communications
Contacts:
Head of Marketing: Kenneth Conroy
Head of Engineering: Roy Mason
Year Established: 1981
Number of Employees: 5

TELTONE CORP.
10801-120th N.E.
P.O. Box 657
Kirkland, WA 98033
(206) 827-9626
Major Market: Communications Equipment Manufacturing
Target Applications: Data Communications, Local-Area Networks
Contacts:
Head of Sales: Dale E. Johnson
Head of Software, David Ellelbach
Head of Engineering: Floyd Allen
Head of Customer Service: Walt Riebe
Geographic Coverage: International
Year Established: 1969
Number of Employees: 400

TERMINAL DATA CORP.
11678 Coakley Circle
Rockville, MD 20852
(301) 881-7655
Major Market: Peripheral, Communications Equipment and Office Equipment Manufacturing; Dealer/Distributor
Target Industries: Communications; Government; Aerospace
Target Applications: Remote Communication; Applied Analysis
Contacts:
Head of Marketing: Mark Tellalbaum
Geographic Coverage: National
Year Established: 1970
Number of Employees: 10

TEXAS INSTRUMENTS, INC.
Data Systems Group
12501 Research Blvd.
P.O. Box 2909
Austin, TX 78769
(512) 250-7111
Major Market: Component, Computer, Terminal, Peripheral and Communications Equipment Manufacturing
Contacts:
Head of Marketing: Tom Ellis
Head of Engineering: George H. Hellmeier
Geographic Coverage: International
Year Established: 1930
Number of Employees: 80,000

THOMAS ENGINEERING
1040 Oak Grove Road
Concord, CA 94518
(415) 680-8640
Major Market: Computer and Communications Equipment Manufacturing
Contacts:
Head of Marketing: Richard Mondloch
Head of Engineering: Douglas Broadwell
Geographic Coverage: International
Year Established: 1978
Number of Employees: 20

TIGON SYSTEMS, INC.
Suite 207
13470 Washington Blvd.
Marina Del Ray, CA 90291
(213) 827-7118
Major Market: Software House
Target Industries: Professional; Legal; Medical
Target Applications: Office Management; WP
Contacts:
Head of Marketing: David Bakstran
Head of Software: George Simons
Head of Engineering: Michael Hadjidonou
Geographic Coverage: National
Year Established: 1978
Number of Employees: 14

TIE COMMUNICATIONS, INC.
5 Research Dr.
Shelton, CT 06484
(203) 928-7373
Major Market: Communications Equipment Manufacturing
Target Industries: Telephone; Interconnect; Supply Houses
Contacts:
Head of Sales: Gilbert Engels
Head of Engineering: Wilbur Brown
Geographic Coverage: International
Year Established: 1971
Number of Employees: 1,000

TIMEPLEX, INC.
400 Chestnut Ridge Road
Woodcliff Lake, NJ 07675
(201) 391-1111
Major Market: Communications Equipment Manufacturing; OEM (Computer Systems)
Target Industries: Telecommunication; Manufacturing; Financial; Education
Target Applications: Data Communications, Networks
Contacts:
Head of Sales: Victoria Brown
Geographic Coverage: International
Year Established: 1969
Number of Employees: 750

TITN
5501 W. 78th St.
Edina, MN 55437
(612) 944-5440
Major Market: Communications Equipment Manufacturing; OEM (Computer Systems); Software House; Systems House (Commercial OEM)
Target Industries: R&D; Communications
Geographic Coverage: National
Year Established: 1975
Number of Employees: 13

TMW CORP.
3444 Hancock St.
San Diego, CA 92110
(619) 296-2115
Major Market: Peripheral and Communications Equipment Manufacturing; Software House
Net Sales: $100,000 - $500,000 (1981)
Contacts:
Head of Marketing: Douglas Gage
Head of Sales: Pat Doering
Head of Engineering: Gary Huckell
Head of Customer Service: Steve Gage
Geographic Coverage: International
Year Established: 1977
Number of Employees: 7

TOP DOWN SYSTEMS
Suite 236
414 Hungerford Dr.
Rockville, MD 20850
(301) 251-8400
Major Market: Software House
Contacts:
Head of Marketing: Skip Caldwell
Geographic Coverage: National
Year Established: 1980
Number of Employees: 4

TOSHIBA AMERICA, INC.
Telecommunications Division
2441 Michelle Dr.
Tustin, CA 92680
(714) 730-5000
Major Market: Communications Equipment Manufacturing
Target Industries: Telecommunications
Contacts:
Head of Sales: John Demchuk
Geographic Coverage: International
Year Established: 1975

TRANSACTION DATA SYSTEMS, INC.
5750 Major Blvd.
Orlando, FL 32805
(305) 351-1210
Major Market: Software House; Systems House (Commercial OEM)
Target Industries: Pharmacy; Airline, Banking
Target Applications: Accounting; Message Switching, Package Switching; Virtual Terminal Systems
Net Sales: $1 Million - $5 Million (1981)
Contacts:
Head of Marketing/Sales: Warren Wubker
Head of Software: Richard Jones
Head of Engineering: Charles Hall
Head of Customer Service: Celeste Demetry
Geographic Coverage: National
Year Established: 1977
Number of Employees: 15

TRANSEND CORP.
2190 Paragon Dr.
San Jose, CA 95131
(408) 946-7408
Major Market: Component, Peripheral and Communications Equipment Manufacturing; Software House
Target Applications: Datacommunications
Contacts:
Head of Marketing: David Wertzberger
Head of Software: Malcolm Wright
Geographic Coverage: International
Year Established: 1974
Number of Employees: 50

TRANTOR SYSTEMS, LTD.
Suite I
4432 Enterprise St.
Fremont, CA 94538
(416) 490-3441
Major Market: Peripheral and Communications Equipment Manufacturing
Target Industries: Dealers
Contacts:
Head of Marketing: Ken Betel
Head of Customer Service: Susan Babu
Geographic Coverage: International
Year Established: 1981
Number of Employees: 8

TRENDATA STANDARD MICROWAVE CORP.
3400 W. Segerstrom Ave.
Santa Ana, CA 92704
(714) 540-3805
Major Market: Computer, Terminal, Peripheral and Communications Equipment Manufacturing; Systems House (Commercial OEM); Dealer/Distributor
Target Industries: OEM; Goverment; Education
Contacts:
Head of Marketing/Sales: Miles Efron
Head of Engineering: Emie Worley
Geographic Coverage: International
Year Established: 1968
Number of Employees: 200

TRI-DATA
505 E. Middlefield Road
Mountain View, CA 94043
(415) 969-3700
Major Market: Component and Communications Equipment Manufacturing
Target Industries: Telephone
Contacts:
Head of Marketing: John Scandalos
Head of Software: Earl Ferguson
Head of Engineering: Ken Krosse
Geographic Coverage: International
Year Established: 1967
Number of Employees: 100

TRT DATA PRODUCTS
Northfield Communications
3 Depot Plaza
East Norwalk, CT 06855
(203) 853-2777
Major Market: Component and Communications Equipment Manufacturing; OEM (Computer Systems)
Contacts:
Head of Marketing: Arnold Benard
Head of Engineering: Ron Kelley
Head of Customer Service: John Ives
Geographic Coverage: International
Year Established: 1968
Number of Employees: 30

Is your company or product missing from our buyer's guide?

Let us know.

See the business reply card at the end of the book.

COMPUTERWORLD BUYER'S GUIDE

Vendors

TUCK ELECTRONICS, INC.
330 Second St.
New Cumberland, PA 17070
(717) 761-4354
Major Market: Communications Equipment Manufacturing; Software House
Target Industries: Data Communications; Telephone
Target Applications: Data Communications; Credit Verification
Contacts:
Head of Marketing: Chris Clugston
Geographic Coverage: International
Year Established: 1966

TYMSHARE, INC.
Applied Systems Division
8835 Wisconsin Ave.
Bethesda, MD 20815
(301) 951-0122
Major Market: Component and Communications Equipment Manufacturing; Systems House (Commercial OEM); Data Services (Service Bureau)
Contacts:
Head of Engineering: Alan Monelch
Geographic Coverage: International
Year Established: 1975
Number of Employees: 35

U. S. ROBOTICS, INC.
1123 W. Washington Blvd.
Suite 1718
Chicago, IL 60607
(312) 733-0497
Major Market: Communications Equipment Manufacturing
Target Industries: OEM; Distribution
Contacts:
Head of Marketing: Paul Cowell
Geographic Coverage: National
Year Established: 1978
Number of Employees: 30

UNGERMANN-BASS, INC.
Suite 201
2560 Mission College Blvd.
Santa Clara, CA 95050
(408) 496-0111
Major Market: Communications Equipment Manufacturing
Target Industries: Cross Industry
Contacts:
Head of Marketing: James Jordan
Head of Software: Cary Wyman
Head of Engineering: Robert Ryan
Head of Customer Service: Bruce Jackson
Geographic Coverage: International
Year Established: 1979
Number of Employees: 350

UNISOURCE AUTOMATION PRODUCTS
Suite G
15401 Red Hill
Tustin, CA 92680
(714) 730-10102
Major Market: Software House
Target Applications: Telecommunications; Word Processing
Net Sales: $100,000 - $500,000 (1982)
Geographic Coverage: International
Year Established: 1976
Number of Employees: 5

UNISOFT SYSTEM CORP.
2405 Fourth St.
Berkeley, CA 94710
(415) 644-1230
Major Market: Software House
Net Sales: $1 Million - $5 Million (1982)
Contacts:
Head of Marketing: Bernard Silverman
Head of Sales: Charles Valente
Head of Software: Jeff Schriedmaf
Head of Engineering: Asa Romberger
Geographic Coverage: International
Year Established: 1980
Number of Employees: 20

UNITED TECHNOLOGIES/LEXAR CORP.
31829 W. La Tienda Dr.
Westlake Village, CA 91362
(213) 706-1000
Major Market: Communications Equipment Manufacturing; OEM (Computer Systems); Systems House (Commercial OEM)
Target Industries: Manufacturing; Hotels; Professional; Hospitals
Target Applications: Voice/Data Integrated Network; Building Systems Management; Voice Telephone; Hotel Systems
Contacts:
Head of Marketing: Harry Schwedock
Head of Sales: Larry Evans
Head of Engineering: George Oppenheimer
Geographic Coverage: International
Year Established: 1977
Number of Employees: 400

UNIVERSAL DATA SYSTEMS, INC.

5000 Bradford Dr.
Huntsville, AL 35805
(205) 837-8100
Major Market: Communications Equipment Manufacturing
Target Industries: OEM
Contacts:
Head of Marketing: George Grumbles
Head of Sales: John Jurenko
Head of Engineering: Lonnie McMillian
Geographic Coverage: International
Year Established: 1970
Number of Employees: 600

UNIVERSITY COMPUTING CO.
Applications Software Division
UCC Tower
Exchange Park
Dallas, TX 75235
(214) 353-7100
Major Market: OEM (Computer Systems); OEM (Peripherals-Terminals); Software House; Data Services (Service Bureau); Dealer/Distributor
Target Industries: Cross Industry
Contacts:
Head of Marketing: J. Allen Hufft
Head of Sales: Alan Hufft
Head of Software: Wally Yost
Head of Engineering: Hugo Elmer
Head of Customer Service: Roger Pierpoint
Geographic Coverage: International
Year Established: 1963
Number of Employees: 1,750

USDATA, INC.
1551 Glenville Road
Richardson, TX 75081
(214) 680-9700
Major Market: Terminal, Peripheral and Communications Equipment Manufacturing; Systems House (Commercial OEM); Dealer/Distributor
Target Industries: Communication; Process Control; General Business
Target Applications: Communication; Process Control; General Business
Contacts:
Head of Marketing: Gary Kushneman
Head of Sales: Don Perry
Head of Software: Mitchell Vaugh
Geographic Coverage: International
Year Established: 1974
Number of Employees: 100

USSA COMPUTER CO.
Suite 622
310 4th Ave. S.
Summit Bank Building
Minneapolis, MN 55415
(612) 339-8047
Major Market: Software House; Data Services (Service Bureau); Dealer/Distributor
Target Industries: Engineering; Manufacturing; Banking; Savings/Loans
Target Applications: Structural Analysis; Financial Modeling; Financial Planning; Budgeting
Net Sales: $100,000 - $500,000 (1982)
Geographic Coverage: International
Year Established: 1977
Number of Employees: 5

VAN AMBURG & ASSOCIATES, INC.
4637 Old Seward Highway
Anchorage, AK 99503
(907) 276-3553
Major Market: OEM (Computer Systems); Software House; Systems House (Commercial OEM); Data Services (Service Bureau); Dealer/Distributor
Target Industries: Public Safety; Telephone
Net Sales: $1 Million - $5 Million (1982)
Contacts:
Head of Software: Dave Crawford
Head of Engineering: Steve Czarski
Geographic Coverage: Alaska
Year Established: 1979
Number of Employees: 17

VEN-TEL, INC.
2342 Walsh Ave.
Santa Clara, CA 95051
(408) 727-5721
Major Market: Communications Equipment Manufacturing
Contacts:
Head of Marketing: R. Stitt
Head of Engineering: John Johnston
Geographic Coverage: International
Year Established: 1975
Number of Employees: 100

VERNITRON, INC.
8310 Chilum Place N.W.
Washington, DC 20011
(202) 882-8464
Major Market: Communications Equipment Manufacturing
Target Industries: Data Communications; Commercial; Government
Geographic Coverage: International
Year Established: 1958
Number of Employees: 50

VIA WEST, INC.
980 N. Calle Katrina
P.O. Box 2076
Nogales, AZ 85621
(602) 281-9646
Major Market: Communications Equipment Manufacturing
Geographic Coverage: International
Year Established: 1972
Number of Employees: 18

VISICORP
2895 Zanker Road
San Jose, CA 95134
(408) 946-9000
Major Market: Software House
Target Applications: Financial Planning; Scheduling; Cost Analysis; Business Graphics
Contacts:
Head of Marketing: David Spencer
Head of Sales: Ben Cushman
Head of Software: Gene Buschele
Geographic Coverage: International
Year Established: 1978
Number of Employees: 300

VISIONARY ELECTRONICS, INC.
141 Parker Ave
San Francisco, CA 94118
(415) 751-9611
Major Market: Peripheral, Communications Equipment and Office Equipment Manufacturing; OEM (Peripherals-Terminals); Systems House (Commercial OEM)
Target Industries: Telex; Networking
Year Established: 1982
Number of Employees: 4

WANG LABORATORIES, INC.

One Industrial Ave.
Lowell, MA 01851
(617) 459-5000
Major Market: Computer, Terminal, Peripheral, Communications Equipment and Office Equipment Manufacturing
Target Industries: Banking; Insurance; Legal; State/Local Government
Target Applications: Data Entry; Electronic Mail; Human Resource Management; Programmer Utilities
Contacts:
Head of Marketing: Robert Doretti
Head of Software: Frederick Wang

Head of Customer Service: Ray Cullen
Geographic Coverage: International
Year Established: 1981
Number of Employees: 26,000

WESTERN DATACOM
5063 Market St.
Youngtown, OH 44512
(216) 788-6583
Major Market: Communications Equipment Manufacturing
Target Industries: Financial; Manufacturing
Target Applications: Security Systems; Data Communications
Year Established: 1981
Number of Employees: 4

WESTERN TELECOMPUTING CORP.
202 E. Kagy Blvd.
Bozeman, MT 59715
(406) 586-1511
Major Market: Computer and Communications Equipment Manufacturing
Target Industries: Weather
Contacts:
Head of Sales/Marketing: Bob Johnson
Geographic Coverage: International
Year Established: 1969
Number of Employees: 10

WESTERN TELEMATIC, INC.
2435 E. Anne St.
Santa Ana, CA 92704
(800) 854-7226
Major Market: Peripheral and Communications Equipment Manufacturing
Target Industries: Data Communications; PBX
Contacts:
Head of Sales: David Shumway
Geographic Coverage: International
Year Established: 1964
Number of Employees: 20

WILD HARE COMPUTER SYSTEMS, INC.
P.O. Box 3581
Boulder, CO 80307
(303) 442-0324
Major Market: Software House
Net Sales: $500,000 - $1 Million (1981)
Contacts:
Head of Marketing: Wendy Preiman
Head of Software: D. Green
Geographic Coverage: International
Year Established: 1971
Number of Employees: 10

WINDJAMMER, INC.
5 Northway Lane N.
Latham, NY 12101
(518) 783-1336
Major Market: Communications Equipment Manufacturing; OEM (Peripherals-Terminals); Software House; Systems House (Commercial OEM); Data Services (Service Bureau); Dealer/Distributor
Target Industries: General
Target Applications: Accounting; Legal-Time Billing; Call-Detail Recording; LAN
Year Established: 1982
Number of Employees: 45

WINTERWALTER, INC.
3553 Research Park Dr.
Ann Arbor, MI 48104
(313) 662-2002
Major Market: Software House
Target Industries: Fortune 1000
Net Sales: $1 Million - $5 Million (1981)
Contacts:
Head of Sales: Bert Castridone
Head of Software: Ray Pacek
Head of Engineering: Tom Ladish
Geographic Coverage: International
Year Established: 1979
Number of Employees: 25

WOLFDATA, INC.
187 Billerica Road
Chelmsford, MA 01824
(617) 250-1500
Major Market: Communications Equipment Manufacturing
Contacts:
Head of Marketing: Kevin Want
Geographic Coverage: International
Year Established: 1980
Number of Employees: 30

XEROX CORP.
500 Longridge Road
P.O. Box 1600
Stamford, CT 06904
(203) 329-8700
Major Market: Computer, Terminal, Peripheral and Office Equipment Manufacturing; Software House; Systems House (Commercial OEM)
Target Industries: Government; General Business
Contacts:
Head of Customer Service: John V. Tilsworth
Geographic Coverage: International
Year Established: 1906
Number of Employees: 110,000

XEROX CORP.
Office Products Division
1341 W. Mockingbird Lane
Dallas, TX 75247
(214) 688-6985
Major Market: Computer and Office Equipment Manufacturing
Target Applications: Office Automation
Geographic Coverage: International

XYPLEX, INC.
100 Domino Dr.
Concord, MA 01742
(617) 371-1400
Major Market: Peripheral and Communications Equipment Manufacturing
Target Industries: Banking; Engineering; Retail; Manufacturing
Target Applications: Transaction Processing; Industrial Process Control; LAN; Terminal Switching Equipment
Contacts:
Head of Marketing: Robert Rosenbaum
Head of Engineering: George Comeri
Geographic Coverage: National
Year Established: 1981
Number of Employees: 5

XYCOM, INC.
1300 Southhampton
St. Louis, MO 63139
(314) 961-5766
Major Market: Communications Equipment Manufacturing
Target Industries: Financial; Airline; Banking
Contacts:
Head of Marketing: S. Landel
Head of Engineering: Fred Stewart
Geographic Coverage: National
Year Established: 1979
Number of Employees: 3

ZAIAZ COMMUNICATIONS, INC.
207 Lakin Dr.
Huntsville, AL 35801
(205) 881-2200
Major Market: Component and Communications Equipment Manufacturing
Target Industries: Lodging; Banks
Target Applications: Voice Mail; Dictation; Electronic Mail; Voice Store/Forward
Contacts:
Head of Marketing: Ray Kesner
Head of Software: Ron Jackson
Head of Engineering: Preston Jett
Geographic Coverage: Regional
Year Established: 1982
Number of Employees: 11

ZIMIN ASSOCIATES, INC.
2334 Bronson Hill Dr.
Los Angeles, CA 90068
(213) 462-4000
Major Market: Software House; Systems House (Commercial OEM); Dealer/Distributor
Target Industries: Telecommunications
Target Applications: Telecommunications
Net Sales: $100,000 - $500,000 (1981)
Contacts:
Head of Marketing: William Sales
Head of Software: Robert Nelson
Head of Customer Service: Royce A. Rablnow
Geographic Coverage: National
Year Established: 1980
Number of Employees: 5

ZOOM TELEPHONICS, INC.
207 South St.
Boston, MA 02111
(617) 423-1230

Need information about advertising in *Computerworld Buyer's Guide*?

Call Kevin McPherson at (617) 879-0700.

COMPUTERWORLD BUYER'S GUIDE

Major Market: Communications Equipment Manufacturing
Contacts:
Head of Marketing: Ralph Hays
Year Established: 1977
Number of Employees: 50

XTEL, INC.
181 Belmdale St.
Wilmington, MA 01887
(617) 657-8730
Target Industries: OEM; End User; Telephone; Interconnect
Target Applications: Voice Communications; Data Communications; Office Automation; Local-Area Networks
Contacts:
Head of Marketing: Philip Kay
Head of Engineering: Henry Vannini
Head of Customer Service: Tom Robinson
Geographic Coverage: International
Year Established: 1981
Number of Employees: 200

3 COM CORP.
1390 Shorebird Way
Mountain View, CA 94043
(415) 961-9602
Major Market: Communications Equipment Manufacturing
Contacts:
Head of Marketing/Sales: John DiLorrio
Geographic Coverage: International
Year Established: 1979
Number of Employees: 50

3M CO.
Static Control Systems
3M Center 225-4S
St. Paul, MN 55144
(612) 733-1110
Target Applications: Static Control
Contacts:
Head of Marketing: Philip Kohlhaas
Head of Sales: Michael E. Martin
Head of Engineering: Dr. James A. Tolzmann
Geographic Coverage: International
Year Established: 1962

UDS gives 212 users three ways to go!

212A—Today's most popular modem. UDS offers a fully Bell-compatible unit with complete local and remote test capability. Select 0–300 or 1200 bps for full-duplex asynchronous communication. The UDS 212A is FCC certified for direct connection to the dial-up telephone network, and available in multi-channel, rack-mounted configuration.

SINGLE UNIT PRICE $595

212 LP — Compatible with 212As at the 1200 bps, full-duplex asynchronous communication rate. No power supply or AC connection required; the 212 LP derives its operating power directly from the telephone line. Ideal for applications requiring 212A capability at 1200 bps only. The 212 LP is direct-connect certified.

SINGLE UNIT PRICE $445

212A/D — Identical to the 212A, with automatic dialing capability added! The unit stores and dials up to five 30-digit numbers. CRT menu prompting, single-stroke commands and automatic test capabilities are provided. The 212A/D is direct-connect certified.

SINGLE UNIT PRICE $645

UDS Universal Data Systems

MOTOROLA INC. Information Systems Group

5000 Bradford Drive, Huntsville, AL 35805. Telephone 205/837-8100; TWX 810-726-2100

DISTRICT OFFICES:
Old Bridge, NJ, 201/251-8080 • Blue Bell, PA, 215/643-2336 • Atlanta, 404/998-2715 • Glenview, IL, 312/998-8160 • Columbus, OH, 614/888-3885 • Boston, 617/875-8888
Richardson, TX, 214/690-0002 • Englewood, CO, 303/694-6043 • Houston, 713/988-8808 • Tustin, CA, 714/669-8001 • Mountain View, CA, 415/969-3383

Created by Daynor/Hall, Inc., Winter Park, Florida

UDS raises the speed limit for dial-up modems

At last there's a 9600 bps modem designed especially for the dial-up telephone network.

Our 9600 A/B is the ideal modem for projected system growth. Realize immediate line-charge savings by moving from 208 A/B to 9600 A/B now! Then, if your system demands dedicated lines, simple strap modifications will convert your modems. Nothing else changes!

A faster turnaround time than 208 A/B's further increases the 9600 A/B's efficiency. Multiple test modes are selectable from the front panel.

Contact Universal Data Systems, 5000 Bradford Drive, Huntsville, AL 35805. Telephone 205/837-8100; TWX 810-726-2100.

Universal Data Systems

MOTOROLA INC.
Information Systems Group

DISTRICT OFFICES:
Old Bridge, NJ, 201/251-8080 • Blue Bell, PA, 215/643-2336 • Atlanta, 404/998-2715 • Glenview, IL, 312/998-8180 • Columbus, OH, 614/895-3025 • Boston, 617/875-8888
Richardson, TX, 214/680-0002 • Englewood, CO, 303/694-6043 • Houston, 713/988-5508 • Tustin, CA, 714/669-8001 • Mountain View, CA, 415/969-3323

Created by Daymar/Hall, Inc., Winter Park, FL

Modem Index by Class

The index to modems has been grouped according to device type — couplers, digital, fiber-optic, line driver, long-haul, modem eliminators, radio frequency and short-haul. The last section of the index includes all other modems which do not fit into any of the above categories. Within each section, products have been listed alphabetically by vendor and contain the unit price and the page number on which the listing can be found.

The modem product listings have been arranged alphabetically by vendor.

Acoustic Couplers

VENDOR	MODEL	PRICE	PAGE
Anderson Jacobson, Inc.	AJ 242A	NA	A-11
	AJ 247	NA	A-11
	AJ 1232	$635	A-11
Atari, Inc.	ATARI 1030 DIRECT CONNECT MODEM	NA	A-14
Bostwick Data Systems	AC 312 1200B	$495	A-15
	AC 312 300B	$199	A-15
Cam Data	151A2-13	$127	A-30
Develcom Electronics, Inc.	710 ACOUSTIC COUPLER	$195	A-30
Digital Equipment Corp.	DP01-A ACOUSTIC COUPLER	$345	A-30
Enron Corp.	ACOUSTIC COUPLER, N76	$195 to $225	A-27
International Data Sciences, Inc.	PHONE LINK ACOUSTIC MODEM	$189	A-36
Lexicon Corp. of Miami	LEX-11	$145	A-38
	LEX-11 CCI II	$178	A-38
	LEX-11 CCI IIB	$218	A-38
	LEX-11B	$185	A-38
	LEX-12	$185	A-38
	LEX-12B	$205	A-38
	LEX-15	$325	A-38
	LEX-15B	$365	A-38
Nestar Data Communications, Inc.	N76/5-1	$155	A-39
	N76/5-2	$170	A-39
Novation, Inc.	CAT	$189	A-40
	CCITT CAT	$299	A-40
Racal-Vadic	VA3413	$695	A-52
Tandy Corp.	AC- 26-1174	$149	A-55
Tel-Com, Inc.	TC3001	$195 to $265	A-55
	TC3002	$265	A-55
	TC3008	$195	A-39

Digital Modems

VENDOR	MODEL	PRICE	PAGE
Amdahl Corp.	983 DSU	$645 to $745	A-11
General Datacomm Industries, Inc.	GDC 500A/56K	$995	A-30
	GDC GSU-500A	$895	A-30
	GSU-500B	NA	A-30
Hayes	DSU/CSU 1600R-4	$1,125	A-30
	DSU/CSU 1600R-3	$795	A-48
	DSU/CSU 1600R-5	$700 to $800	A-48
Schneider Instrument Co.	MCT-2	$3,425	A-54
Telegroccessing Products, Inc.	TP-500	$495 to $650	A-52
	TP-501	$695 to $1,025	A-39
	TP-556	$585 to $750	A-39
	TP-557	$890 to $1,095	A-56

Fiber-Optic Modems

VENDOR	MODEL	PRICE	PAGE
Belden Corp.	BIT-DRIVER 22-005	$195	A-15

Modem Index

VENDOR	MODEL	PRICE	PAGE
Belden Corp.	BIT-DRIVER 222-004	$225	A-15
Broadband Systems, Inc.	BIT DRIVER 222004	$225	A-16
	BIT DRIVER 222005	$195	A-16
Canoga Data Systems	CSA-100	$495	A-17
	CSY-306-A-S	$1,500	A-17
	CSY-306-S	$1,800	A-17
	CSY-3063AX-R	$1,200	A-17
Codenoll Technology Corp.	CODELINK 10	$500	A-17
	CODELINK 20	$500	A-17
	CODELINK 50	$500	A-17
	CODELINK 100	$3,000	A-18
Fibronics International, Inc.	FM 801	N/A	A-27
	FM 802	N/A	A-27
Gandalf Data, Inc.	FA1	$500	A-28
	FS1	$800	A-28
Manage, Inc.	FOM-232A	$475	A-38
	FOM-1232	$325	A-38
Math Associates, Inc.	XR-1000	$950	A-39
	XR-1100	$410	A-39
Optelecom	4110	$160	A-47
	4121	$160	A-47
Optical Communications Corp.	FD-10K	$1,200	A-47
	FD-20K	$1,890	A-47
	FD-56K	N/A	A-47
	FD-1200	$1,040	A-47
Phalo Corp.	ODS-201	$625	A-48
	ODS-209	$725	A-48
	ODS-306	$1,750	A-48
Raycom Systems, Inc.	2000	$250	A-52
	2200	$350	A-52
	3000	$320	A-52
Verilogue, Inc.	FOM-7	$750	A-60

Line Drivers

VENDOR	MODEL	PRICE	PAGE
Art Electronic Products, Inc.	LIMITED DISTANCE MODEM MODEL 6 (LDM-6)	$195	A-12
Black Box Catalog/Expander, Inc.	BELL-COMPATIBLE MODEM 212	$595	A-15
Com Data	350/352/354F3-72	$117 to $296	A-20
Compatrol	30-0078	$160 to $200	A-22
	30-0080	$150 to $209	A-22
Datapraducts New England, Inc.	DDU-1	$798	A-24
DEI-Teleproducts, Inc.	ADT-3	$225	A-25
Gandalf Data, Inc.	LDS 100C	$225	A-28
	LDS 101	$400	A-32
Infotron Systems Corp.	LD 210/AS	$210	A-34
	LD 210/SA	$350	A-34
Kinex Corp.	SAB-2X4	$545	A-36
Micom Systems, Inc.	M400MP	$220	A-40
	M420MP	$320	A-40
	M430	$85	A-40
Prentice Corp.	ALD/1	$200 to $300	A-48
	HSLD/1	$380 to $490	A-49
Telebyte Technologies, Inc.	72D. VT-100 COMPATIBLE SHIM	$130	A-55
	74A SHORT HAUL MODEM WITH HANDSHAKE	$185	A-55
	79 DUAL SHORT-HAUL MODEM WIRE HANDSHAKE	$225	A-55
Tellabs, Inc.	3010	$100	A-56
Telmax Inc.	LDD-1	$150	A-59
	SLD-1	$450	A-59
Van-Tel, Inc.	ALD SERIES	$205 to $320	A-59
	SLD-SERIES	$380 to $450	A-62
Western Telecomputing Corp.	103 MODEM #507	$390	A-61
	103/12 MODEM #506	$625	A-61
	SATELLITE MODEM #508	$275	A-61

Long-Haul Modems

VENDOR	MODEL	PRICE	PAGE
Anchor Automation, Inc.	MARK II SIGNALMAN	$99	A-11
	MARK VI SIGNALMAN	$239	A-11
	MARK VII SIGNALMAN	$159	A-11

Modem Index

VENDOR	MODEL	PRICE	PAGE
Anchor Automation, Inc.	MARK X SIGNALMAN	$159	A-11
	MARK XII SIGNALMAN	$399	A-11
	VOLKSMODEM	$79	A-11
Anderson Jacobson, Inc.	AJ 4048	$2,495 to $2,990	A-11
Racomp	MODEL 1012	$649	A-16
	MODEL 1022	$249	A-16
	MODEL 1080	$139	A-16
	MODEL 2120	$499	A-16
Burroughs Corp.	CP 1004	NA	A-16
	CP 1009	NA	A-16
	CP 1009-R/T	NA	A-16
	TA 1201	NA	A-16
	TA 1203	NA	A-16
	TA 1801	NA	A-16
	TA 1802/1804	NA	A-17
Bytecom, Inc.	212 AD	$439	A-17
Catel	DM 2100	$1,895	A-17
Chung Telecommunications	TURBO MUX	$695	A-17
	TURBO 212A	$995	A-17
Codex Corp.	224 DATA MODEM	NA	A-18
	224/V.22 BIS DATA MODEM	NA	A-18
	5016R MULTIPLE MODEM ENCLOSURE	NA	A-18
	5103/513 DATA MODEMS	NA	A-18
	5201R DATA MODEM	NA	A-18
	5202R V.23	NA	A-18
	5208R DATA MODEM	NA	A-18
	5212/ACU	NA	A-18
	5212R	NA	A-18
	8300 GBM	NA	A-18
	CS 48FP	$4,175	A-19
	CS 96FP	$7,475	A-19
	CS 4800	$4,675	A-19
	CS 9600	$7,975	A-19
	LSI 24/24	$2,650	A-19
	LSI 48FP	$3,500	A-19
	LSI 48I	$3,500	A-19
	LSI 48/V.27 BIS/TER	$3,500	A-19
	LSI 96FP	NA	A-19
	LSI 96/V.29	NA	A-19
	LSI 4800	$3,500	A-19
	LSI 9600	$6,800	A-19
	LSI E96/V.29	$6,800	A-19
	LSI E9600	NA	A-19
	LSI E9604	NA	A-19
	MX 2400 DATA MODEM	NA	A-19
	SP 14 4	NA	A-19
Coherent Communications Systems Corp.	SPM-94A	$900	A-19
Com Data	154E2-14	$127	A-20
	208 A/B	$1,697	A-20
	212E2-32	$377	A-20
	302A2-13	$157	A-20
	302A2-33	$187	A-20
	302B2-13	$177	A-20
	302B2-33	$247	A-20
	302C2-13L	$297	A-20
	305E2-12	$117	A-20
	312E2-42	$387	A-20
	312F2-22L	$337	A-20
	330E2-12L	$137	A-20
	330E2-42L	$187	A-20
	332E2-12L	$187	A-20
	332E2-42L	$247	A-20
	332F7/332FB	$591	A-21
	334E2-12L	$537	A-21
	334E2-42L	$587	A-21
	370E2-12 PHONEM	$227	A-21
	370E2-42	$277	A-21
	P 212 A	$495 to $595	A-21
ComDesign, Inc.	TM-1200	$750	A-21
	TM-2400	$750	A-21
	TM-4800	$1,750	A-21
	TM-9600	$2,750	A-21
Commodore Business Machines, Inc.	C-1650 AUTOMATIC MODEM	NA	A-21
Compro Communications, Inc.	LH96	$2,650	A-22
Computer Communications Specialists, Inc.	AUDIO MODEM	$4,895	A-22
Computer Development, Inc.	ET SERIES INTELLIGENT MODEMS	$495 to $695	A-22
	ETC	$1,095 to $1,295	A-22
	ETC (MULTI-USER)	$1,895	A-22

Modem Index

VENDOR	MODEL	PRICE	PAGE
Compaq, Inc.	DATATALKER 9600C	N/A	A-22
Comtech Data Corp.	GB 56	$6,000	A-22
	GB 168	$17,500	A-22
	M700	$4,650	A-22
	SM200A	$14,300	A-22
Comtech Data Corp.	MF 05	$4,650	A-23
Concord Data Systems, Inc.	CDS 212	$700	A-23
	CDS 224	$995 to $1,195	A-23
	CDS 224 TM	$995	A-23
	CDS 224 TM AUTODIAL	$1,195	A-23
	CDS V.22	$850	A-23
	CDS V.22 BIS	$995	A-23
	CDS V.22 BIS AUTODIAL	$1,195	A-23
Datagram Corp.	D 2400	$995	A-24
	D 4800	$1,750	A-24
	D 9600	$2,250	A-24
Datapoint Corp.	9478/9479	$995	A-24
Dataprobe, Inc.	MDR 103	$450	A-24
Datec, Inc.	33	$195 to $599	A-25
	212	$195 to $599	A-25
	PAL 105	$195 to $599	A-25
	PAL 212	$195 to $599	A-25
	PAL PLUS	$195 to $599	A-25
Develcon Electronics, Inc.	2X212 MODEMPLEXER	$995	A-26
	9212 SMART MODEM	$495	A-26
	7212 MODEM	$575	A-26
	8212 SMART MODEM	$650	A-26
	9123 MODEM	$195	A-26
Digital Equipment Corp.	DF02-AA/AC	$450 to $650	A-26
	DF03-AA/AC	$895 to $1,095	A-26
	DF03-RA/RC	$750 to $950	A-26
Dotrol Systems, Inc.	LYNX 103-0AA	$299	A-27
	LYNX 103-0AA (APPLE LYNX)	$298.000	A-27
Enmar Corp.	103-1	$175 to $485	A-27
	103-2	$175 to $485	A-27
	103-3	$175 to $485	A-27
	103-5	$175 to $485	A-27
Ericsson Pragmatic, Inc.	ZAT 1200	$950	A-27
	ZAT 2400	$925	A-27
	ZAT 4800	$1,895	A-27
	ZAT 9600	$2,195	A-27
Friedman Associates	NEC 201	$620	A-27
	NEC 201 CR	$945	A-27
	NEC 202T	$305	A-28
	NEC 212	$500	A-28
	NEC 212 AR	$500	A-28
	NEC 212 BR	$675	A-28
	NEC DSP 4800-U	$950	A-28
	NEC DSP 9600-U	$1,500	A-28
	NEC VOICE DIGITIZER	$7,000	A-28
Fujitsu America, Inc.	F-1915L	$1,795	A-28
	F-1921L	$2,450	A-28
	F-1925L	$6,000	A-28
	M-1915CM06	$395	A-28
	M-1921CM08	$595	A-28
	M-1925CM02	$1,200	A-28
	M-1925CM03	$1,500	A-28
Gandalf Data, Inc.	SAM 201	N/A	A-29
	SAM 212A	$818	A-29
	SM 9600	$2,800	A-29
General Datacomm Industries, Inc.	DC 103J	N/A	A-30
	DC 108-3M	N/A	A-30
	DC 201-7	$675	A-30
	DC 201C	N/A	A-30
	DC 201C-K	$750	A-30
	DC 202S/T	$405	A-30
	DC 208B/A	$1,595	A-30
	DC 212A	$840	A-31
	DC 2400ASM	$795	A-31
	DC 4800	$1,475	A-31
	DC 4800S	$1,445	A-31
	DC 4827	N/A	A-31
	DC 9600	N/A	A-31
	DC 9600 EP	$2,730	A-31
	DC 9600 QP	$2,995	A-31
	DC 9600 QPS	N/A	A-31
	GDC 103J-M	$240	A-31
	GDC 212 ED	$535	A-31

Modem Index

VENDOR	MODEL	PRICE	PAGE
General Datacomm Industries, Inc.	GDC 212SS	$435	A-31
	GDC 2400 ED	NA	A-32
	GDC 9604 WITH 4-CHANNEL MULTIPLEXER	$3,195	A-32
Gtech Corp.	CM 7201A	$280	A-32
	GSC 202	NA	A-32
Hayes Microcomputer Products, Inc.	MICROMODEM IIE	$329	A-32
	MICROMODEM 100	$399	A-32
	SMARTMODEM 300	$269	A-32
	SMARTMODEM 1200	$695	A-33
	SMARTMODEM 1200B	$599	A-32
Honeywell, Inc.	DCD2021	$495	A-33
	DCD2011	$995	A-33
	DCD2012	$895	A-33
	DCD2021	$995	A-33
	DCD2121	$800	A-33
IBM	MODEL 3863-1	$2,695	A-33
	MODEL 3863-2	$2,935	A-33
	MODEL 3864-1	$3,715	A-33
	MODEL 3864-2	$3,925	A-33
	MODEL 3865 MODEL 1&2	$5,895	A-34
	RACK-MOUNTED MODEM 3868 MODEL 1	$2,500 to $5,000	A-34
	RACK-MOUNTED MODEM 3868 MODEL 2	$2,550 to $5,000	A-33
	RACK-MOUNTED MODEM 3868 MODEL 3	$2,500 to $5,000	A-34
	RACK-MOUNTED MODEM 3868-MODEL 4	$2,550 to $5,000	A-33
IDE Associates, Inc.	IDEACOMM 1200	$545	A-33
Infinet, Inc.	NCM 14.4	NA	A-33
	NCM 1200	$1,200	A-33
	NCM 2400	$1,400	A-34
	NCM 4800	$2,400	A-33
	NCM 9600	$4,300	A-34
Infotron Systems Corp.	DL 96/V.29	$4,500	A-33
	DL 201C	$950	A-33
	DL 9600/V.29 BSM	$5,500	A-33
	DSM 201C	$825	A-33
	DSM 212B	$750	A-33
Integrated Design Engineering, Inc.	IDE-300	$500	A-33
Interbusiness Corp.	212A	$595	A-33
	A1200	$499	A-33
	AC 300	$189	A-33
	AUTO DIAL 212A	$539	A-33
	M1200	$449	A-33
	OEM	NA	A-33
	S-100	$449	A-33
	STARCOM	$449	A-33
International Data Sciences, Inc.	AUTO LINK 212	$549	A-33
	AUTO LINK 1200	$499	A-33
	AUTODIAL 212	$589	A-33
	MICRO LINK 300	$239	A-33
	MICRO LINK 1200	$449	A-37
	PASSWORD AUTODIAL 212A MODEM	$449	A-37
International Modem Exchange (Timeco)	THE OPERATOR	$159	A-37
Kinex Corp.	2400/FDX	NA	A-33
	4800/208/AB	$1,725	A-33
	4800/27	$2,225	A-33
	9600/29	$2,750	A-33
	9600/DCM (DATA COMPRESSION MODEM)	$3,650	A-33
	9600/FP	$3,350	A-33
	9600/M	$3,650	A-33
Lexicon Corp. of Miami	LEX-10	$119	A-33
	LEX-10B	$159	A-33
MFJ Enterprises	MFJ 1233	$129	A-33
Micom Systems, Inc.	M4024, M4024/ASYNC	$795 to $825	A-40
	M4048/DB+	$3,295	A-40
	M4048/V.27+	$2,595	A-40
	M4048/V.27-NF	$1,750	A-40
	M4096/4+	$3,695	A-40
	M4096/DB+	$3,795	A-33
	M4096-NF	$2,695	A-33
	M4096/V.29+	$3,095	A-33
Micro-Band Systems, Inc.	80512	$650	A-40
The Microperipheral Corp.	80514	$595	A-42
	AUTOPRINT MICROCONNECTION	$149	A-42
	RS232	$159 to $199	A-40
	SUBMINIATURE OEM MODEM	$90	A-42
	TRS 80 MODEL 1	$209 to $259	A-40
Modular Integration, Inc.	MSM-980	NA	A-40
Multinet, Inc.	H53 GROUP DATA MODEM	NA	A-40
Multi - Tech Systems, Inc.	MT 103J	$250	A-40

Modem Index

VENDOR	MODEL	PRICE	PAGE
Multi-Tech Systems, Inc.	MT 201B	$695	A-44
	MT 202T	$345	A-43
	MT 212AD	$695	A-43
	MT 212AH	$549	A-43
	MT 212C	$550	A-43
	MT 212PC	$549	A-43
NCR Comten,Inc.	NCR COMTEN 7163 0100	NA	A-44
	NCR COMTEN 7163 0200	NA	A-44
	NCR COMTEN 7164 0100	$3,700	A-44
	NCR CONTEN 7164 0200	NA	A-44
	NCR COMTEN 7165 0100	$5,600	A-44
NEC Telephone, Inc.	B103JR	$460	A-44
	DSP 208	$1,750	A-44
	DSP 224	$1,195	A-44
	DSP 4800-U	$1,995	A-44
	DSP 9600-U	$2,895	A-44
	N113C-DR	$430	A-44
	N201C	$845	A-44
	N201CR	$695	A-44
	N202SR	$495	A-44
	N202T	$400	A-44
	N212AR	$695	A-49
	N212BR	$795	A-44
	SP1440-U	$7,800	A-49
	SP9600-FAST-U	$5,300	A-49
	SPN 4800-U	$3,500	A-44
	SPN 9600-U	$7,000	A-45
Network Products, Inc.	NP-48	$1,800	A-49
	NP-96	$2,750	A-49
Hoshee Data Communications, Inc.	N103-3	$385	A-45
	N103-4	NA	A-45
Northern Telecom, Inc.	2230	$675	A-49
	2240	$850	A-49
	2250	$1,995	A-44
	2260	$2,995	A-45
Novation, Inc.	21 APPLE-CAT II	$389 to $725	A-49
	103 SMART-CAT	$249	A-49
	103/212 SMART-CAT	$595	A-49
	212 AUTO-CAT	$695	A-44
	APPLE-CAT II	$389	A-49
	D-CAT	$199	A-44
	J-CAT	$149	A-49
	PC1200B	$595	A-49
Nu Data Corp.	108	NA	A-49
Paradyne Corporation	CHALLENGER 2400	$700	A-47
	CHALLENGER 4800	$1,500	A-47
	CHALLENGER 9600	$2,600	A-47
	DTU-1200D	NA	A-47
	LSI 24C	NA	A-47
	MP 14.4	NA	A-47
	MP 14 4 SM	NA	A-47
	MP 16 0	NA	A-47
	MP 48/208B	NA	A-47
	MPX 2400	$950	A-47
	MPX 4800	$2,000	A-47
	MPX 9600	$3,400	A-47
Penril Corp.	300/1200	$525	A-43
	300/1200 AUTO DIAL	$650	A-49
	1800 DED	$375	A-49
	2127	$1,695	A-44
	2129	$2,595	A-49
	6201 A/B	$1,750	A-49
Prentice Corp.	212 TCM	$695 to $795	A-49
	9600A/B	$2,995	A-44
	9629	$2,650 to $2,750	A-49
	P-V.22	$695 to $795	A-49
	P-201C	$695 to $795	A-49
	P-202T	$295 to $395	A-49
	P-208A/B	$1,650 to $1,750	A-49
	P-212	$495 to $595	A-49
	TRIMODEM	$850 to $950	A-49
PulseCom	4011-10 (108C) (RECEIVER)	$351	A-49
	4012-10 (108A) TRANSMITTER	$351	A-49
Racal-Milgo, Inc.	24 LSI MARK II	$1,450 to $2,050	A-49
	CMS 12	$1,900 to $2,050	A-49
	CMS 24	$2,200	A-50
	MODEM 56K	$8,000 to $8,250	A-50
	MODEM 112K	$16,500 to $17,400	A-50

Modem Index

VENDOR	MODEL	PRICE	PAGE
Racal-Milgo, Inc.	MPS 14.4K	$10,000 to $12,400	A-66
	OMNIMODE CS (CENTRAL SITE)	$2,100 to $3,600	A-66
	OMNIMODE 48	$2,450 to $4,150	A-66
	OMNIMODE 96	$4,150 to $5,850	A-66
Racal-Vadic	VA103 MODEMPHONE	$250 to $380	A-60
	VA212 AUTO DIAL	$695	A-60
	VA212 PAR AUTO DIAL	$695	A-60
	VA212LC	$495	A-60
	VA315	$375	A-60
	VA317	$250	A-60
	VA355	$375	A-60
	VA1205/30 SERIES	NA	A-60
	VA1240	$290	A-61
	VA1250 SERIES DIRECT-CONNECT	NA	A-61
	VA1250 SERIES OF LEASED LINE MODEMS	$425 to $550	A-61
	VA2430 G/K	$500	A-61
	VA2440/45	$575 to $725	A-61
	VA2450 SERIES	$725 to $875	A-61
	VA3451 TRIPLE MODEM	$875	A-61
	VA3455	$775	A-62
	VA3467	NA	A-62
	VA3480 SERIES	$950	A-62
	VA4400 SERIES	$1,745 to $1,945	A-62
	VA4640 SERIES	$1,350	A-62
RFL Industries	6365	$390	A-62
	6860	$3,600	A-62
Rixon, Inc.	OEM 212A FOR CUSTOM APPLICATIONS	NA	A-62
	PC 212A MODEM FOR IBM PC AND PC-XT	$499	A-62
	R14 4 MODEM	NA	A-62
	R103J LSI MODEM	NA	A-62
	R212A INTELLIGENT MODEM	NA	A-62
	R212A LSI MODEM	NA	A-62
	R2424 LSI MODEM	NA	A-62
	RV .29/2 MODEM SYSTEM	NA	A-62
	T103J LSI MODEM	NA	A-63
	T108 LSI DATA MODEM	NA	A-63
	T113C LSI DATA MODEM	NA	A-63
	T202S LSI DATA MODEM	NA	A-63
	T202T LSI DATA MODEM	NA	A-63
	T212A LSI DATA MODEM	NA	A-63
	TA 208A/B LSI MODEM	NA	A-63
Rockwell International	R24 THREE MODULE SET	NA	A-63
	R24DC	NA	A-63
	R24LL	NA	A-63
	R48DP	NA	A-63
	R96DP	NA	A-63
	R99FAX	NA	A-63
	R99FT	NA	A-64
	R242M	NA	A-64
	R1212DC	NA	A-64
	R1212M	NA	A-64
	R2424DC	NA	A-64
	V27P/1	NA	A-64
	V96P/1	NA	A-64
Sensar, Inc.	2103	$250	A-64
	2202	$400	A-64
	2407	$500	A-64
Tandy Corp.	76-1005/1009 (ACU)	$699 to $848	A-65
	DC MODEM IB 26-1175	$99	A-65
	DC MODEM II 26-1173	$199	A-65
Tak-Com, Inc.	4700	$365	A-65
	TC5001	NA	A-65
Telenet Corporation	TELEPORT 300	$399	A-52
Timeplex, Inc.	202 C/D	$325	A-56
	AIM SERIES	$1,080 to $2,625	A-56
	R103	$315	A-56
	R103 C/D	$256 to $335	A-57
	R202 C/D	$360	A-57
	V.29 PLUS	$4,100 to $4,600	A-57
TNW Corp.	OPERATOR 103	$189	A-57
	TNW-103	$449	A-57
Transcend Corporation	MODEM CARD AMC-300	$325	A-57
	PC MODEM CARD 300	$349	A-57
	PC MODEM CARD 1200	$549	A-57
	TRANS MODEM 1200	$695	A-57
Tri-Data	OZ 225	$1,375	A-57
	OZ GUARDIAN	$750	A-57
TRT Data Products	202	$175 to $200	A-57

Modem Index

VENDOR	MODEL	PRICE	PAGE
TRT Data Products	212	$250	A-87
Tusk Electronics, Inc.	MODEC 1540	$242	A-87
	MODEL 1653	$275	A-87
Tymshare, Inc.	MODEL 912 MODEM	$695	A-88
Universal Data Systems, Inc.	103 LP O/A	$145	A-89
	103J	$425	A-89
	103JLP	$195	A-89
	108	$295	A-89
	201B	$965	A-89
	201C	$775	A-89
	202LP	$195	A-89
	202S	$475	A-89
	202S/SS	$550	A-89
	202SLP	$245	A-89
	202T	$425	A-89
	208A/B	$1,750	A-89
	212A	$595	A-89
	212A/D	$645	A-89
	212LP	$445	A-89
	9600	$2,850	A-89
	9600A/B	$2,650	A-89
U. S. Robotics, Inc.	IBM PC MODEM	$449	A-89
	IBM PC 64	$590	A-89
	IBM PC MODEM 256	$1,149	A-89
	OEM 4	$300	A-89
	PASSWORD	$449	A-89
	S100 BUS MODEM	$449	A-89
Van-Tel, Inc.	212 SERIES	$425 to $675	A-89
	1200 - PLUS	$499	A-89
	MD 103-1/2E	$245 to $315	A-90
	MD 103J SERIES	$245 to $415	A-90
	MD 113 SERIES	$245 to $315	A-90
	MD 201-1	$730 to $800	A-90
	MD 201-3/4E	$805 to $875	A-90
	MD 202-1/2E	$310 to $380	A-90
	MD 202-5/8E	$280 to $350	A-90
	PCM-H150P	$425	A-90
	PCM-XT	$549	A-90
Visionary Electronics, Inc.	VISIONARY 100	$595	A-90
	VISIONARY 1200	$795	A-90
Wang Laboratories, Inc.	CATV MODEM	NA	A-90
	WA 3451 MODEM	$1,050	A-90
Western Datacom	212 AUTODIAL	$625	A-91
	WORLDCOM 200	$595	A-91
Wolfdata Inc.	WD-212A	NA	A-91
Zoom Telephonics,Inc.	NETWORKER	$129	A-91

Modem Eliminators

VENDOR	MODEL	PRICE	PAGE
Art Electronic Products, Inc.	MODEM ELIMINATOR MODEL 3 (ME-3)	$295	A-12
Astrocom Corp.	MODEM EMULATOR	$315	A-14
Avanti Communications Corporation	300	$360	A-14
	300H	$795	A-14
Com Data	ME-2D	$510	A-21
Com/Tech Systems, Inc.	MODEMULATOR 402A	$390	A-23
Dynatech Corporation	ME-1	$440	A-30
Gandalf Data Inc.	ME 2D	$400	A-39
	ME 922	$450	A-39
General Datacomm Industries, Inc.	DME-3	NA	A-32
Inter-Link	CLUSTER MODEM EMULATORS CME-1R	$675	A-36
International Data Sciences, Inc.	MODEL 6110	$370	A-37
Kaufman Research Mfg., Inc.	401 MODEM/PORT CONTENTION UNIT	$965	A-37
Spawy Corp.	DATA COMMUNICATION MODULE (TYPE 8510)	$852	A-84
Teleprocessing Products, Inc.	TP-232	$395	A-86

Radio Frequency Modems

VENDOR	MODEL	PRICE	PAGE
Applitek Corp.	BROAD BAND MODEM	NA	A-12
Gandalf Data Inc.	RADIO MODEM	$1,595	A-39

VENDOR	MODEL	PRICE	PAGE
Glenayre Electronics	GL 1102 HF PULSE COMPRESSION	$6,000 to $8,000	A-35
	GL 1142 HFMESSAGE TERMINAL	$6,000 to $8,000	A-32
Interactive Systems/3M	MODEL 520 AUDIO MODEM	$870	A-36
	MODEL 720 DATA & CONTROL MODEM	$1,390 to $1,490	A-36
	MODEL 920 DATA MODEM	$990	A-36
	MODEL 925 DATA MODEM	$590	A-36
	MODEL 960 DATA MODEM	$990	A-36
	MODEL 965 DATA MODEM	$1,190	A-36
Ungermann-Bass, Inc.	CATV-MODEM	$750 to $950	A-69
	NETWORK MODEM 640	$895	A-69
	NETWORK MODEM 670	$1,990	A-36

Short-Haul Modems

VENDOR	MODEL	PRICE	PAGE
Amdahl Corporation	982 LIMITED DISTANCE DATA SET	$495 to $850	A-11
	984 MULTIPORT LIMITED DISTANCE DATA SET	NA	A-11
Ark Electronic Products, Inc.	LIMITED DISTANCE MODEM MODEL 1B (LDM-1B)	$695	A-12
	LIMITED DISTANCE MODEM MODEL 4 (LDM-4)	$92	A-19
	LIMITED DISTANCE MODEM MODEL 5 (LDM-5)	$395	A-19
	LIMITED DISTANCE MODEM MODEL 7 (LDM-7)	$425	A-14
Astrocom Corp.	MO512	$810	A-14
	SH56S	$825	A-14
	SH96/48	$295	A-14
	SH192S	$395	A-14
Avanti Communications Corporation	1900	$575	A-14
	1985	$695	A-14
	1949	$895	A-14
	2200	$950	A-14
	2300H	$1,975	A-14
	2300M	$1,825	A-14
	2400	$1,100	A-19
	4800	$1,950	A-19
	MODEL 600A	$285	A-19
Boldon Corp.	BIT-DRIVER 222-024	$195	A-15
	BIT DRIVER 222-025	$170	A-16
Cabletron Systems Corp.	MOD-1	$1,495	A-17
Codex Corp.	8150 LDSU	NA	A-19
	8250 LDSU	NA	A-19
Coherent Communications Systems Corp.	LINEMATE 192	$450	A-19
Commodore Business Machines, Inc.	C-1600	NA	A-21
Communication Research Corp.	100	$315	A-21
	400	$475	A-21
Complex Systems,Inc.	LS 56K	$850	A-22
	LVS 76.8	$650	A-22
Comtech Data Corp.	M816	$2,000	A-23
Data Control Systems	CCM COAXIAL CABLE MODEM	$165 to $875	A-23
	SR102	$165 to $875	A-23
	SR120	$165 to $875	A-23
	SR202	$165 to $875	A-23
Dataproducts Corporation	DDU-1	$700	A-38
Datatel,Inc.	DCP 3000	$200	A-24
	DCP 3010	$260	A-24
	DCP 3020	$250	A-24
	DCP 3050	$420	A-25
	DCP 3055	$550	A-25
	DCP 3057	$550	A-25
	DCP 3060	$850	A-25
	DCP 3070	$1,400	A-25
	DCP 3150	$420	A-25
	DCP 3155	$550	A-25
Dill-Telegroducts,Inc.	2000	$689	A-25
	ASR-3	$445	A-25
	ELD-1	$175	A-25
Duracom Corp.	ECS-10	$89 to $104	A-25
Dynatech Corporation	LDM 12	$275	A-26
	LDM 22	$440	A-26
	LDM 32	$590	A-26
Gandalf Data Inc.	LDS 120; RM 3120	$300	A-26
	LDS 121	NA	A-26
	LDS 140; RM 3140	$450	A-26
	LDS 260	$795 to $995	A-26
	LDS 309; RM 3309	$450	A-26
	LDS 319; RM 3119	$735	A-26

Modem Index

VENDOR	MODEL	PRICE	PAGE
Gandalf Data Inc.	LDS 329; RM 3329	$450	A-39
	SM LDS 349;	$295	A-39
	LINE MISER	$295 to $305	A-39
	MINI LDS 122	NA	A-39
General Datacomm Industries, Inc.	DC 2020	$860	A-39
	DC 2030	$805	A-32
	GDC LCM 1010/1020	$295 to $325	A-32
	NMS-2020	NA	A-39
Interbusiness Corp.	100 RA	$235	A-36
	200	$495	A-36
Inter-Link	LDM-1R	$245	A-39
	LDM-1V	$600	A-36
International Data Sciences, Inc.	MODEL 6000H	$750	A-37
	MODEL 6000L	$750	A-37
	MODEL 6200	$250	A-37
	MODEL 6220	$300	A-37
	MODEL 6240	$400	A-37
Kapsul Laboratories	DT 19.2 DATA TRANCEIVER	$1,190	A-37
Kinex Corp.	4 WIRE BASE BAND	NA	A-36
	2400/201C	NA	A-36
Madrar Corp.	Z9600	$167	A-39
Micom Systems, Inc.	M401	$250	A-39
	M402	$330	A-40
	M421	$370	A-39
	M431	NA	A-42
Microcom Inc.	ERA 2 FOR APPLE IIE	$429	A-42
	ERA 2 FOR IBM PC	$429	A-39
	ERA 2 FOR IBM PC JR	$429	A-42
	PCS FLASH 2000 NETWORKING MODEM	$995	A-42
	RX FLASH 1000 NETWORKING MODEM	$695	A-39
Multi Tronics	CATV MODEM	$2,000	A-44
PECA, Inc.	EXT-1212	$1,600	A-39
Pearl Corp.	8192	$535	A-48
	PSH-96A	$250	A-39
Racal-Milgo, Inc.	COM LINK III	$920 to $945	A-39
Rixon, Inc.	LDM 710 LIMITED DISTANCE DATA MODEM	NA	A-53
	LDM 720 LIMITED DISTANCE DATA MODEM	NA	A-53
Scientific Atlanta, Inc.	6402	$4,000	A-54
Scientific Radiation	5010 SERIES OPTICAL DATA LINK	$289 to $338	A-54
Selcorp, Inc.	IDBC 9600 SERIES	$500	A-54
Telebyte Technologies, Inc.	71	NA	A-55
	72	$125	A-39
	73 REMOTELY CONTROLLED SHM	NA	A-39
	75 DUAL SHORT HAUL MODEM	$165	A-56
Timeplex, Inc.	SLDM	$850	A-57

Other Modem Types

VENDOR	MODEL	PRICE	PAGE
Anderson Jacobson, Inc.	AJ 1212-AD1	$595	A-11
	AJ 1212-AD2	$695	A-12
	AJ 1212-2BO1	$425 to $495	A-12
	AJ 1212-ID01	$485	A-12
	AJ 1212-ISO1	$385	A-12
	AJ 1212-RM1	$595	A-12
	AJ 1212-ST	$495	A-12
	AJ 1259	$695	A-12
	AJ 1259-AD	$775	A-12
Bo-Sherrel Co., Inc.	M-1A	$114 to $138	A-16
	M-3	$49	A-16
	M-4	$440	A-16
Gandalf Data Inc.	LDM 404; RM 3404	$875 to $975	A-30
	LDM 409	NA	A-30
	LDM 414; RM 3414	$975 to $1,050	A-30
	LDM 444; RM 3444	$1,350	A-30
	LDM 454; RM 3454	$1,495	A-30
General Datacomm Industries, Inc.	CSU-550A	NA	A-30
LEE Systems,Inc.	4D1	$6,950	A-30
	4DT1/7DT1	$9,450 to $12,550	A-30
Pearl Corp.	8801C	$675	A-48
	MCU 4B	$440	A-48
Teleprocessing Products, Inc.	TP-550	$415 to $540	A-30
	TP-551	$525 to $630	A-30
Telsiba, Inc.	310 DATAVOICE SYSTEM	$450 to $500	A-58

AMBANI, CORP.
960 DSU
Modem Class: Digital (DSU)
Transmission Technique: Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Synchronous - 2,400 bps, 4,800 bps, 9,600 bps, 56,000 bps
Interface: RS-232C, CCITT V.24, V.35
Transmission Medium: DDS
Diagnostics: Yes; built-in
Features: Autoequalizer, Diagnostics, Switchable Data Rates
Distribution Method: End user
Price: $645 to $745
Number Installed to Date: 100 - 500
Date First Installed: July 1983
(See Vendor Profile Page V-2)

AMBANI, CORP.
962 LIMITED-DISTANCE DATA SET
Modem Class: Short-Haul
Transmission Technique: Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Synchronous - 1,200 bps, 2,400 bps, 4,800 bps, 9,600 bps, 14,400 bps, 56,000 bps, 64,000 bps, Asynchronous - 64,000 bps
Interface: RS-232C, CCITT V.24, MIL 188C, V.35, Bell 301/303
Transmission Medium: Metallic 4-Wire
Diagnostics: Yes, Built-in
Features: Autoequalizer, Diagnostics, Switchable Data Rates
Distribution Method: End user
Price: $495 to $850
Number Installed to Date: 1,000 - 5,000
Date First Installed: July 1982

AMBANI, CORP.
964 MULTIPORT LIMITED-DISTANCE DATA SET
Modem Class: Short-Haul
Transmission Technique: Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 1,800 bps, Synchronous - 2,400 bps, 4,800 bps, 9,600 bps
Interface: RS-232C, CCITT V.24
Transmission Medium: Metallic 4-Wire
Diagnostics: Yes, Built-in
Features: Autoequalizer, Diagnostics, Multiport, Switchable Data Rates
Distribution Method: End user

AMERICAN PHOTOMICS
TR5000
Modem Class: Fiber Optic
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps, 14,400 bps, 19,200 bps, 56,000 bps
Interface: RS-232C
Transmission Medium: Fiber Optics
Distribution Method: OEM
Price: $99
Number Installed to Date: Under 500
(See Vendor Profile Page V-2)

ANCHOR AUTOMATION, INC.
MARK 8 SIGNALMAN
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 300 bps
Interface: RS-232C
Bell-Compatible: 103
Transmission Medium: Voice-Grade Lines
Diagnostics: No
Features: Alternate Voice/Data, Originate/Answer
Distribution Method: OEM, Third-party
Price: $99
Number Installed to Date: 10,000 - 50,000
Date First Installed: January 1982
(See Vendor Profile Page V-2)

ANCHOR AUTOMATION, INC.
MARK VI SIGNALMAN
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 300 bps
Interface: IBM Bus
Bell-Compatible: 103
Transmission Medium: Voice-Grade Lines
Diagnostics: No
Features: Autodial, Autoanswer, Alternate Voice/Data
Distribution Method: OEM, Third-party
Price: $239
Number Installed to Date: 1,000 - 5,000
Date First Installed: January 1983

ANCHOR AUTOMATION, INC.
MARK VII SIGNALMAN
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 300 bps
Interface: RS-232C
Bell-Compatible: 103
Transmission Medium: Voice-Grade Lines
Features: Autodial, Autoanswer, Alternate Voice/Data
Distribution Method: OEM, Third-party
Price: $154
Number Installed to Date: 10,000 - 50,000
Date First Installed: June 1982

ANCHOR AUTOMATION, INC.
MARK X SIGNALMAN
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous - 300 bps
Interface: RS-232C
Bell-Compatible: 103
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-in
Features: Autodial, Autoanswer, Alternate Voice/Data
Distribution Method: OEM, Third-party
Price: $189
Number Installed to Date: 600 - 1,000
Date First Installed: November 1983

ANCHOR AUTOMATION, INC.
MARK XII SIGNALMAN
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous - 300 bps, 1,800 bps
Interface: RS-232C
Bell-Compatible: 103, 212
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-in
Features: Autodial, Autoanswer, Alternate Voice/Data, Switchable Data Rates
Distribution Method: OEM, Third-party
Price: $399
Date First Installed: September 1983

ANCHOR AUTOMATION, INC.
VOLKSMODEM
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous - 300 bps
Interface: RS-232C
Bell-Compatible: 103
Transmission Medium: Voice-Grade Lines
Diagnostics: No
Features: Originate/Answer
Distribution Method: OEM, Third-party
Price: $79
Number Installed to Date: 5,000 - 10,000
Date First Installed: September 1983

ANDERSON JACOBSON, INC.
AJ 242A
Modem Class: Coupler
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps
Interface: RS-232C
Bell-Compatible: 103
Transmission Medium: Voice-Grade Lines
Diagnostics: No
Distribution Method: End user, OEM, Third-party
Number Installed to Date: 10,000 - 50,000
Date First Installed: 1977
(See Vendor Profile Page V-2)

ANDERSON JACOBSON, INC.
AJ 347
Modem Class: Coupler
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps
Interface: RS-232C
Bell-Compatible: 103
Transmission Medium: Voice-Grade Lines
Distribution Method: End user, Third-party
Number Installed to Date: 5,000 - 10,000
Date First Installed: 1978

ANDERSON JACOBSON, INC.
AJ 1232
Modem Class: Coupler
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 600 bps, 1,200 bps
Interface: RS-232C
Bell-Compatible: 103, 212
Transmission Medium: Voice-Grade Lines
Diagnostics: No
Features: Autoanswer, Switchable Data Rates
Distribution Method: End user, OEM, Third-party
Price: $635
Number Installed to Date: 1,000 - 5,000
Date First Installed: 1981

ANDERSON JACOBSON, INC.
AJ 4048
Modem Class: Long-Haul
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous/Synchronous - 2,400 bps, 4,800 bps
Interface: RS-232C, MIL 188C
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-in
Features: Autoequalizer, Autoanswer, Alternate Voice/Data, Diagnostics, Fallback, Switchable Data Rates, Autoecho Cancel
Distribution Method: End user, Third-party
Price: $2,495 to $2,990
Number Installed to Date: 100 - 600
Date First Installed: May 1983

ANDERSON JACOBSON, INC.
AJ 1212-A01
Modem Class: DDD
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps, Asynchronous/Synchronous - 1,800 bps
Interface: RS-232C
Bell-Compatible: 103, 212
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes, Built-in
Features: Autodial, Autoequalizer, Autoanswer, Alternate Voice/Data, Diagnostics, Switchable Data Rates

Modems

Distribution Method: End user, OEM, Third-party
Price: $595
Date First Installed: December 1983

ANDERSON JACOBSON, INC.
AJ 1212-AD2
Modem Class: DDD
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps, Asynchronous/ Synchronous - 1,200 bps
Interface: RS-232C
Bell-Compatible: 103, 212
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-in
Features: Autodial, Autoequalizer, Autoanswer, Alternate Voice/Data, Diagnostics, Switchable Data Rates
Distribution Method: End user, OEM, Third-party
Price: $695
Date First Installed: December 1983

ANDERSON JACOBSON, INC.
AJ 1212-3901
Modem Class: DDD
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps, Asynchronous/ Synchronous - 1,200 bps
Interface: RS-232C, IBM PC BUS
Bell-Compatible: 103, 212
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-in
Feature: Autodial, Autoequalizer, Autoanswer, Diagnostics
Distribution Method: End user, OEM, Third-party
Price: $425 to $495

ANDERSON JACOBSON, INC.
AJ 1212-4D01
Modem Class: DDD
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps; Asynchronous/ Synchronous - 1,200 bps
Interface: RS-232C, TTL
Bell-Compatible: 103, 212
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-in
Features: Autodial, Autoequalizer, Autoanswer, Alternate Voice/Data, Diagnostics, Switchable Data Rates
Distribution Method: OEM, Third-party
Price: $465
Date First Installed: December 1983

ANDERSON JACOBSON, INC.
AJ 1212-4D01
Modem Class: DDD
Transmission Technique: Asynchronous, Synchronous -
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps; Asynchronous/ Synchronous - 1,200 bps
Interface: RS-232C, TTL
Bell-Compatible: 103, 212
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes, Built-in
Features: Autoequalizer, Autoanswer, Diagnostics, Switchable Data Rates, Integral Card
Distribution Method: OEM, Third-party
Price: $385

ANDERSON JACOBSON, INC.
AJ 1212-RM1
Modem Class: DDD
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps; Asynchronous/ Synchronous - 1,200 bps
Interface: RS-232C
Bell-Compatible: 103, 212
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes, Add-on
Features: Autoanswer, Diagnostics
Distribution Method: End user, OEM, Third-party
Price: $595

ANDERSON JACOBSON, INC.
AJ 1212-ST
Modem Class: DDD
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps, Asynchronous/ Synchronous - 1,200 bps
Interface: RS-232C
Bell-Compatible: 103, 212
Transmission Medium: Voice-Grade Lines
Diagnostics: No
Features: Autoequalizer, Autoanswer, Alternate Voice/Data, Diagnostics, Switchable Data Rates
Distribution Method: End user, OEM, Third-party
Price: $495
Date First Installed: December 1983

ANDERSON JACOBSON, INC.
AJ 1259
Modem Class: DDD
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps; Asynchronous/ Synchronous - 1,200 bps
Bell-Compatible: 103, 212
Transmission Medium: Voice-Grade Lines
Diagnostics: No
Features: Autoanswer, Diagnostics, Switchable Data Rates, Triple Modem
Distribution Method: End user, OEM, Third-party
Price: $995
Number Installed to Date: 5,000 - 10,000
Date First Installed: 1981

ANDERSON JACOBSON, INC.
AJ 1259-AD
Modem Class: DDD
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps, Asynchronous/ Synchronous - 1,200 bps
Interface: RS-232C
Bell-Compatible: 103, 212
Transmission Medium: Voice-Grade Lines
Diagnostics: No
Features: Autodial, Autoanswer, Alternate Voice/Data, Diagnostics, Switchable Data Rates, Triple Modem
Distribution Method: End user, OEM, Third-party
Price: $775
Number Installed to Date: 1,000 - 5,000
Date First Installed: 1982

APPLITEK CORP.
BROAD BAND MODEM
Modem Class: Radio Frequency (RF)
Transmission Technique: Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous/ Synchronous - 10M bps
Transmission Medium: Wide-Band Lines, Fiber Optics
Diagnostics: No
Features: Frequency Select
Distribution Method: OEM
Number Installed to Date: 0 - 100
Date First Installed: October 1983
(See Vendor Profile Page V-2)

ARK ELECTRONIC PRODUCTS, INC.
LIMITED DISTANCE MODEM MODEL 8 (LDM-8)
Modem Class: Line Driver
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps, 19,200 bps, 56,000 bps, Synchronous 9,600 bps
Interface: RS-232C
Transmission Medium: Wide-Band Lines
Diagnostics: No
Features: Diagnostics, Switchable Data Rates
Distribution Method: End user, OEM
Price: $195
Number Installed to Date: 500 - 1,000
Date First Installed: 1981
(See Vendor Profile Page V-3)

ARK ELECTRONIC PRODUCTS, INC.
MODEM ELIMINATOR MODEL 3 (ME-3)
Modem Class: Modem Eliminator
Transmission Technique: Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Synchronous - 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps, 19,200 bps, 14,400 bps
Interface: RS-232C
Diagnostics: No
Features: Diagnostics, Switchable Data Rates
Distribution Method: End user, OEM
Price: $295
Number Installed to Date: 1,000 - 5,000
Date First Installed: 1979

ARK ELECTRONIC PRODUCTS, INC.
LIMITED DISTANCE MODEM MODEL 1B (LDM-1B)
Modem Class: Short-Haul
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Synchronous - 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps, 19,200 bps, 14,400 bps; Asynchronous/Synchronous - 3,600 bps, 7,200 bps
Interface: RS-232C
Diagnostics: No
Features: Diagnostics, Switchable Data Rates
Distribution Method: End user
Price: $695
Number Installed to Date: 500 - 1,000
Date First Installed: 1978

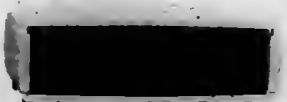
ARK ELECTRONIC PRODUCTS, INC.
LIMITED DISTANCE MODEM MODEL 4 (LDM-4)
Modem Class: Short-Haul
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps, 19,200 bps, 14,400 bps
Interface: RS-232C
Transmission Medium: Wide-Band Lines
Diagnostics: No
Features: Diagnostics, Switchable Data Rates
Distribution Method: End user, OEM
Price: $62
Number Installed to Date: 500 - 1,000
Date First Installed: 1980

ARK ELECTRONIC PRODUCTS, INC.
LIMITED DISTANCE MODEM MODEL 5 (LDM-5)
Modem Class: Short-Haul
Transmission Technique: Asynchronous, Syschronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps, 600 bps, 1,800 bps, 14,400 bps, 19,200 bps; Asynchronous/Synchronous - 1,200 bps, 2,400 bps, 4,800 bps, 9,600 bps
Interface: RS-232C
Features: Diagnostics, Switchable Data Rates
Distribution Method: End user, OEM
Price: $395
Number Installed to Date: 500 - 1,000

WE HAVE 2400 GOOD WAYS TO UPGRADE YOUR DIAL LINE DATA COMMUNICATIONS

If you're still transmitting data over telephone lines at 1200bps, we'll show you how to save time and money. Our 2400bps full duplex dial modems give you all the performance, versatility *and reliability* that you require, at half the transmission cost, and twice the speed.

All CDS dial line modems operate at 2400bps full duplex with automatic 1200bps fallback *in both* synchronous and asynchronous modes. With our modems you can communicate from or to any terminal, micro, mini, or mainframe computer (even your PC), with support of BSC, HDLC, SDLC, X.25 or *any other* full or half duplex protocol.



Double your data rate and cut transmission costs with complete reliability.

And with CDS 2400bps full duplex dial modems, you won't have to sacrifice one bit of data integrity. Our modems all use advanced signal processing techniques, and feature automatic adaptive equelizetion. Sophisticated modem diagnostics including analog and digital self-test and an internal test pattern generator rapidly isolate modem faults. With a CDS 2400bps modem, your data will come through smoothly and accurately, even on poor telephone lines.

Communicate with mainframes, minis or micros using any sync or async protocol.

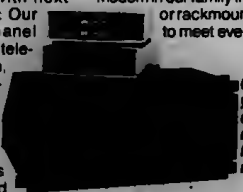
CDS modems combine user-friendly engineering with next-generation technology. Our touch sensitive front panel allows you to select the telephone line configuration, operating mode and diagnostic tests you need. An optional, front panel synch/asynch selector lets you switch from synchronous to asynchronous transmission swiftly and easily, without monkeying around with internal modem straps.

Our new 2400bps autodial modem eliminates extra telephone hardware and lets you leave your modem unattendad...ready to communicate when telephone rates are lowest. It supports both touch-tone and rotary dialing systems and operates with "dumb" or intelligent terminals using keyboard or software controlled commands.

Send data at off-hour rates with 2400bps autodial.

We've built our reputation on products that give you advanced engineering at down to earth prices. Our 2400bps full duplex modems range from $995 to $1195 with attractive quantity discounts available.

There's a 2400bps full duplex dial modem in our family in either tabletop or rackmount configuration to meet every need.



Get the functions you want in the configuration you need from our full family of 2400bps modems.

It's time you got more data for your dollar. Call or write, Concord Data Systems, 303 Bear Hill Road, Waltham, Massachusetts 02154 (617) 890-1394, or contact the CDS representative nearest you.

CONCORD DATA SYSTEMS

LINKING COMMUNICATIONS TECHNOLOGY

STOCKING DISTRIBUTORS: NY/CT/NJ/DE (800) 345-2038, (203) 288-5234, (201) 798-8882, (609) 778-0800 PA (412) 921-0900, (215) 639-9000 DC/MD (301) 992-9898, (301) 381-5133, (301) 381-4344 NC (919) 832-6789, (919) 373-0400, (704) 523-8666 SC (803) 799-1885, (803) 271-4660 GA (404) 951-8288, (404) 498-2800 FL (800) 282-8120 (inside), (800) 237-9883 (outside) (813) 994-0829, (904) 386-4003, (305) 791-5459 (305) 947-5459 KY (502) 244-0131 OH (800) 543-7638 (419) 389-1111, (216) 582-0700, (614) 885-5582, (513) 294-2778, (513) 961-6776, (604) 885-5582 MI (313) 569-0980 IN (317) 848-6772 IL (312) 283-2440, (312) 583-2290, (217) 352-3307, (217) 544-9685 WI (414) 251-4142 MN (612) 888-4444 MO (816) 252-3700, (314) 721-0401 OK (405) 478-5000 TX (915) 542-1782, (214) 620-1561, (713) 353-7728, (512) 327-3800 NM (505) 524-9883, (505) 292-1212 AZ (602) 994-5400, (602) 994-4351, (602) 623-9413 CO (303) 777-8070, (303) 446-3282, (303) 594-0880, (303) 573-5133 NE (800) 523-1513, (402) 895-5850 UT (801) 486-8522 ID/OR/WA/MT (800) 227-8088 CA (800) 824-0872 (inside) (800) 421-4585, (800) 421-4405 or (800) 824-0873 (outside), (213) 908-9804 (213) 559-3822, (415) 340-1618, (714) 535-9801, (714) 951-8142, (314) 567-8435, (916) 366-6256

Modems

ARK ELECTRONIC PRODUCTS, INC.
LIMITED DISTANCE MODEM MODEL 7 (LDM-7)
Modem Class: Short-Haul
Transmission Technique: Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Synchronous - 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps, 19,200 bps, 14,400 bps; Asynchronous/ Synchronous - 57,600 bps
Interface: RS-232C
Transmission Medium: Wide-Band Lines
Diagnostics: No
Features: Diagnostics, Switchable Data Rates
Distribution Method: End user, OEM
Price: $425
Number Installed to Date: 100 - 500
Date First Installed: 1982

ASTROCOM CORP.
MODEM EMULATOR
Modem Class: Modem Eliminator
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Synchronous - 2,400 bps, 4,800 bps, 9,600 bps, 14,400 bps, 19,200 bps, 56,000 bps
Interface: RS-232C
Distribution Method: Third-party
Price: $315
Number Installed to Date: 5,000 - 10,000
Date First Installed: January 1976
(See Vendor Profile Page V-3)

ASTROCOM CORP.
MOD12
Modem Class: Short-Haul
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Synchronous - 2,400 bps, 4,800 bps, 9,600 bps, 14,400 bps, 19,200 bps, 56,000 bps
Interface: RS-232C
Transmission Medium: Unload Twisted-Wire
Diagnostics: Yes, Built-in
Features: Diagnostics, Multiport, Switchable Data Rates
Distribution Method: Third-party
Price: $610
Number Installed to Date: 5,000 - 10,000
Date First Installed: January 1977

ASTROCOM CORP.
SH96
Modem Class: Short-Haul
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Synchronous - 56,000 bps, Asynchronous/ Synchronous - 28,000 bps
Interface: RS-232C, CCITT V.35
Transmission Medium: Unload - Twisted-Wire
Diagnostics: Yes; Built-in
Features: Diagnostics, Multiport, Switchable Data Rates
Distribution Method: Third-party
Price: $625

ASTROCOM CORP.
SH96/48
Modem Class: Short-Haul
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps
Interface: RS-232C
Transmission Medium: Unload Twisted-Wire
Diagnostics: Yes; Built-in
Features: Diagnostics, Multiport
Distribution Method: Third-party
Price: $295
Number Installed to Date: 5,000 - 10,000
Date First Installed: January 1977

ASTROCOM CORP.
SH192B
Modem Class: Short-Haul
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Synchronous - 2,400 bps, 4,800 bps, 9,600 bps, 14,400 bps
Interface: RS-232C
Transmission Medium: Unload Twisted-Wire
Features: Multiport, Switchable Data Rates
Distribution Method: Third-party
Price: $395
Number Installed to Date: 100 - 500
Date First Installed: January 1982

ATARI, INC.
ATARI 1030 DIRECT CONNECT MODEM
Modem Class: Coupler
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous - 300 bps
Interface: RS-232C
Bell-Compatible: 103, 113
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes, Built-in
Features: Autodial, Multiport
Distribution Method: Third-party
(See Vendor Profile Page V-3)

AVANTI COMMUNICATIONS CORP.
300
Modem Class: Modem Eliminator
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous/ Synchronous - 2,400 bps, 4,800 bps, 9,600 bps, 14,400 bps
Interface: RS-232C, CCITT V.24
Transmission Medium: Voice-Grade Lines
Diagnostics: No
Features: Switchable Data Rates
Distribution Method: End user, OEM, Third-party
Price: $360
Number Installed to Date: 500 - 1,000
Date First Installed: September 1977
(See Vendor Profile Page V-3)

AVANTI COMMUNICATIONS CORP.
300H
Modem Class: Modem Eliminator
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Synchronous - 56,000 bps, Asynchronous/ Synchronous - 224,000 bps
Interface: V.35
Transmission Medium: Voice-Grade Lines
Diagnostics: No
Features: Switchable Data Rates
Distribution Method: End user, OEM, Third-party
Price: $795
Number Installed to Date: 100 - 500
Date First Installed: September 1981

AVANTI COMMUNICATIONS CORP.
1200
Modem Class: Short-Haul
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex, Full-Duplex, Simplex
Transmission Rate: Synchronous - 2,400 bps, 4,800 bps, 9,600 bps, 14,400 bps
Interface: RS-232C
Transmission Medium: Voice-Grade Lines
Features: Autoequalizer, Diagnostics, Switchable Data Rates, Loop Timing
Distribution Method: End user, OEM, Third-party
Price: $575
Number Installed to Date: 500 - 1,000
Date First Installed: 1982

AVANTI COMMUNICATIONS CORP.
1336
Modem Class: Short-Haul
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex, Full-Duplex, Simplex
Transmission Rate: Synchronous - 56,000 bps; Asynchronous/ Synchronous - 64,000 bps
Interface: V.35
Transmission Medium: Digital Links
Diagnostics: Yes; Built-in
Features: Autoequalizer, Loop Timing
Distribution Method: End user, OEM, Third-party
Price: $695
Number Installed to Date: 100 - 500
Date First Installed: 1982

AVANTI COMMUNICATIONS CORP.
1948
Modem Class: Short-Haul
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex, Full-Duplex, Simplex
Transmission Rate: Synchronous - 56,000 bps; Asynchronous/ Synchronous - 64,000 bps
Interface: RS-449
Transmission Medium: Digital Links
Features: Autoequalizer, Diagnostics, Loop Timing
Distribution Method: End user, OEM, Third-party
Price: $695
Number Installed to Date: 100 - 500
Date First Installed: 1982

AVANTI COMMUNICATIONS CORP.
2300
Modem Class: Short-Haul
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Half-Duplex, Full-Duplex, Simplex
Transmission Rate: Asynchronous/ Synchronous - 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps, 14,400 bps, 64,000 bps, Synchronous 19,200 bps, 56,000 bps
Interface: RS-232C, RS-449, CCITT V.24, V.35, MIL188-114
Transmission Medium: Digital Links
Diagnostics: Yes, Built-in
Features: Autoequalizer, Diagnostics, Switchable Data Rates, Multidropping and Extention of DDS Circuit
Distribution Method: End user, OEM, Third-party
Price: $950
Number Installed to Date: 500 - 1,000
Date First Installed: 1977

AVANTI COMMUNICATIONS CORP.
2300H
Modem Class: Short-Haul
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex, Full-Duplex, Simplex
Transmission Rate: Asynchronous/ Synchronous - 2.5M bps
Interface: RS-449, RS-422, V.35, MIL188/114
Transmission Medium: Digital Links
Diagnostics: Yes, Built-in
Features: Autoequalizer, Diagnostics, DSX-1 Compatible
Distribution Method: End user, OEM, Third-party
Price: $1,975
Number Installed to Date: 100 - 500
Date First Installed: 1977

AVANTI COMMUNICATIONS CORP.
2300M
Modem Class: Short-Haul
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex,

Full-Duplex, Simplex
Transmission Rate: Synchronous - 56000 bps; Asynchronous/ Synchronous - 460,800 bps
Interface: RS-422, V.35, Bell 301/303
Transmission Medium: Digital Links
Diagnostics: Yes, Built-In
Features: Autoequalizer, Diagnostics, Switchable Data Rates, Loop Timing
Distribution Method: End user, OEM, Third-party
Price: $1,825
Number Installed to Date: 100 - 500
Date First Installed: 1977

AVANTI COMMUNICATIONS CORP.
2400
Modem Class: Short-Haul
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous/ Synchronous - 2,400 bps
Interface: RS-232C
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-In
Features: Diagnostics, Multiport, Dual Channel Format
Distribution Method: End user
Price: $1,100
Number Installed to Date: 100 - 500
Date First Installed: 1982

AVANTI COMMUNICATIONS CORP.
4800
Modem Class: Short-Haul
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous/ Synchronous - 4,800 bps
Interface: RS-232C, CCITT V.24
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-In
Features: Diagnostics, Multiport
Distribution Method: End user
Price: $1,950
Number Installed to Date: 100 - 500
Date First Installed: 1982

AVANTI COMMUNICATIONS CORP.
MODEL 600A
Modem Class: Short-Haul
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous - 9,600 bps
Interface: RS-232C
Transmission Medium: Voice-Grade Lines, Digital Links
Diagnostics: Yes, Built-In
Features: Autoequalizer, Diagnostics, Switchable Data Rates
Distribution Method: End user, OEM, Third-party
Price: $295
Number Installed to Date: 500 - 1,000
Date First Installed: 1979

AVCOM, INC.
CS 30A
Modem Class: Direct Dial
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 300 bps
Interface: TTL
Bell-Compatible: 103
Transmission Medium: Voice-Grade Lines
Diagnostics: No
Features: Autodial, Autoanswer, Switchable Data Rates
Distribution Method: OEM
Price: $109
Number Installed to Date: Under 100
Date First Installed: December 1982
(See Vendor Profile Page V-3)

AVCOM, INC.
PM 300
Modem Class: Direct Dial
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 300 bps
Bell-Compatible: 103
Transmission Medium: Voice-Grade Lines
Diagnostics: No
Features: Autodial, Autoanswer, Fallback, Switchable Data Rates
Distribution Method: End user
Price: $189
Number Installed to Date: Under 100
Date First Installed: August 1983

BACKUS DATA SYSTEMS
AC 312 1200B
Modem Class: Coupler
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 1,200 bps
Interface: RS-232C, 20 MA Current Loop
Bell-Compatible: 202
Transmission Medium: Voice-Grade Lines
Features: Reverse Channel, Diagnostics
Distribution Method: End user, OEM
Price: $495
Number Installed to Date: 5,000 - 10,000
Date First Installed: 1976
(See Vendor Profile Page V-3)

BACKUS DATA SYSTEMS
AC 312 300B
Modem Class: Coupler
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 300 bps
Interface: RS-232C, 20 MA Current Loop
Bell-Compatible: 103
Transmission Medium: Voice-Grade Lines
Diagnostics: No
Features: Reverse Channel, Diagnostics
Distribution Method: End user, OEM
Price: $199
Number Installed to Date: 5,000 - 10,000
Date First Installed: 1976

BELDEN CORP.
BIT-DRIVER 22-006
Modem Class: Fiber-Optic
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps, 14,400 bps, 19,200 bps, 56,000 bps
Interface: RS-232C
Transmission Medium: Fiber Optics
Distribution Method: Third-party
Price: $195
Number Installed to Date: Under 100
Date First Installed: June 1982
(See Vendor Profile Page V-4)

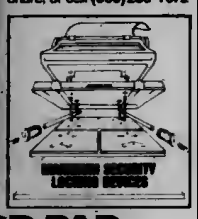
BELDEN CORP.
BIT-DRIVER 222-004
Modem Class: Fiber-Optic
Transmission Technique: Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Synchronous - 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps, 14,400 bps, 19,200 bps, 56,000 bps
Interface: RS-232C
Transmission Medium: Fiber Optics
Diagnostics: No
Features: Loopback
Distribution Method: Third-party
Price: $225
Number Installed to Date: 100 - 500
Date First Installed: June 1982

BELDEN CORP.
BIT-DRIVER 222-004
Modem Class: Short-Haul
Transmission Technique: Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Synchronous - 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps, 14,400 bps, 19,200 bps, 56,000 bps
Interface: RS-232C
Transmission Medium: BAL 2 Metallic Pairs
Diagnostics: No

Protect Your Business Machines From Unwanted Visitors With Anchor Pad.

ANCHOR PAD provides maximum security without damaging either furniture or equipment. It combines the stopping power of four separate locking and bonding devices to produce a gripping force of over 6,000 lbs. that stops thieves cold.

Find out why major business organizations have put ANCHOR PAD to work for them. Write for our free brochure, or call (800) 235-7972



ANCHOR PAD
ANCHOR PAD INTERNATIONAL, INC.
3224 Thatcher Avenue, Marina Del Rey, California 90291

Modems

Features: Diagnostics, Loopback
Distribution Method: Third-party
Price: $195
Number Installed to Date: Under 100
Date First Installed: June 1982

GELDEN CORP.
SIT DRIVER 222-025
Modem Class: Short-Haul
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps, 14,400 bps, 19,200 bps, 56,000 bps
Interface: RS-232C
Transmission Medium: BAL 2 Metallic Pairs
Diagnostics: No
Distribution Method: Third-party
Price: $170
Number Installed to Date: 100 - 500
Date First Installed: June 1982

GECOMP
MODEL 1012
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps, 1,200 bps
Interface: RS-232C
Bell-Compatible: 212
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-In
Features: Autodial, Autoanswer, Reverse Channel, Diagnostics, Fallback, Switchable Data Rates
Distribution Method: End user, Third-party
Price: $649
Date First Installed: January 1982
(See Vendor Profile Page V-4)

GECOMP
MODEL 1022
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps
Interface: RS-232C
Bell-Compatible: 103
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-In
Features: Autodial, Autoanswer, Reverse Channel, Diagnostics, Fallback
Distribution Method: End user, Third-party
Price: $249
Date First Installed: January 1980

GECOMP
MODEL 1060
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps
Interface: RS-232C
Bell-Compatible: 103
Transmission Medium: Voice-Grade Lines
Distribution Method: End user, Third-party
Price: $139
Date First Installed: January 1980

GECOMP
MODEL 2120
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps, 1,200 bps
Interface: RJ11
Bell-Compatible: 212
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-In
Features: Autodial, Autoanswer, Alternate Voice/Data, Reverse Channel, Diagnostics, Fallback, Switchable Data Rates
Distribution Method: End user, Third-party
Price: $499
Number Installed to Date: 500 - 1,000
Date First Installed: June 1983

BLACK BOX CATALOG/EXPANDOR, INC.
BELL-COMPATIBLE MODEM 212
Modem Class: Line Driver
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 300 bps, 1,200 bps
Interface: RS-232C
Bell-Compatible: 212
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Add-on
Features: Autodial, Autoanswer, Switchable Data Rates
Distribution Method: End user
Price: $595
Date First Installed: July 1983
(See Vendor Profile Page V-4)

BO-SHERREL CO., INC.
M-1A
Modem Class: LTD Distance
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex, Full-Duplex, Simplex
Transmission Rate: Asynchronous - 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps
Interface: RS-232C, CCITT V.24
Transmission Medium: Narrow-Band Lines
Distribution Method: End user
Price: $114 to $136
Number Installed to Date: 1,000 - 5,000
Date First Installed: 1982
(See Vendor Profile Page V-4)

BO-SHERREL CO., INC.
M-3
Modem Class: LTD Distance
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex, Full-Duplex, Simplex
Transmission Rate: Asynchronous - 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps
Interface: RS-232C
Transmission Medium: Narrow-Band Lines
Diagnostics: No
Distribution Method: End user
Price: $49
Number Installed to Date: 500 - 1,000
Date First Installed: 1978

BO-SHERREL CO., INC.
M-4
Modem Class: Limited Distance
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex, Full-Duplex, Simplex
Transmission Rate: Synchronous - 1,200 bps, 2,400 bps, 4,800 bps, 9,600 bps, 14,400 bps
Interface: RS-232C, CCITT V.24, CCITT V.26
Transmission Medium: Narrow-Band Lines
Diagnostics: No
Features: Switchable Data Rates
Distribution Method: End user
Price: $440
Number Installed to Date: 1,000 - 5,000
Date First Installed: 1980

BROADBAND SYSTEMS, INC.
SIT DRIVER 222004
Modem Class: Fiber-Optic
Transmission Technique: Synchronous
Transmission Rate: Synchronous - 110 bps, 56,000 bps
Interface: RS-232C
Transmission Medium: Fiber Optics
Diagnostics: No
Features: Clock Calendar
Distribution Method: Third-party
Price: $225
Number Installed to Date: 500 - 1,000
Date First Installed: April 1981
(See Vendor Profile Page V-4)

BROADBAND SYSTEMS, INC.
SIT DRIVER 222005
Modem Class: Fiber-Optic
Transmission Technique: Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 56,000 bps
Interface: RS-232C
Transmission Medium: Fiber Optics
Features: Diagnostics, Clock Calendar, Loopback
Distribution Method: Third-party
Price: $195
Number Installed to Date: 500 - 1,000
Date First Installed: April 1981

BURROUGHS CORP.
CP 1004
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Synchronous - 2,400 bps, 4,800 bps
Interface: RS-232C, CCITT V.24
Features: Autoequalizer, Diagnostics, Fallback
Date First Installed: 1982
(See Vendor Profile Page V-4)

BURROUGHS CORP.
CP 1008
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Synchronous - 4,800 bps, 9,600 bps; Asynchronous/Synchronous - 7,200 bps
Interface: RS-232C, CCITT V.24
Features: Autoequalizer, Diagnostics, Fallback
Date First Installed: 1982

BURROUGHS CORP.
CP 1008-R/T
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Synchronous - 4,800 bps, 9,600 bps, Asynchronous/Synchronous - 7,200 bps
Interface: RS-232C, CCITT V.24
Features: Autoequalizer, Diagnostics, Fallback
Date First Installed: 1982

BURROUGHS CORP.
TA 1201
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps
Interface: RS-232C, CCITT V.24
Bell-Compatible: 202
Features: Autoequalizer, Diagnostics
Date First Installed: 1977

BURROUGHS CORP.
TA 1202
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps
Interface: RS-232C, CCITT V.24
Bell-Compatible: 202
Features: Autoequalizer, Autoanswer, Diagnostics
Date First Installed: 1977

BURROUGHS CORP.
TA 1601
Modem Class: Long-Haul
Transmission Technique: Asynchronous

Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous - 1,200 bps, 1,800 bps
Interface: RS-232C, CCITT V.24
Bell-Compatible: 202
Transmission Medium: Voice-Grade Lines
Features: Autoequalizer, Diagnostics
Data First Installed: 1977

BURROUGHS CORP.
TA 1602/1604
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous - 1,800 bps
Interface: RS-232C, CCITT V.24
Transmission Medium: Voice-Grade Lines
Features: Autoequalizer, Diagnostics, Multiport
Data First Installed: 1977

BYTCOM, INC.
212 AD
Modem Class: Long-Haul
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous/ Synchronous - 300 bps, 1,200 bps
Interface: RS-232C
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-in
Features: Autodial, Autoequalizer, Autorenewer, Alternate Voice/Data, Reverse Channel, Diagnostics, Switchable Data Rates
Distribution Method: Third-party
Price: $439
Number Installed to Date: 500 - 1,000
Data First Installed: March 1983
(See Vendor Profile Page V-4)

CABLESUS SYSTEMS CORP.
MOD-1
Modem Class: Short-Haul
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 300 bps, 2,400 bps
Interface: RS-232C
Bell-Compatible: 212
Transmission Medium: Voice-Grade Lines
Diagnostics: No
Features: Autorenewer, Reverse Channel, Switchable Data Rates
Distribution Method: End user
Price: $1,495
Number Installed to Date: Under 100
Data First Installed: 1981
(See Vendor Profile Page V-6)

CANOGA DATA SYSTEMS
CSA-100
Modem Class: Fiber-Optic
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous/ Synchronous - 1,200 bps, 14,400 bps, 115K bps
Interface: RS-232C, RS-422, V.35
Transmission Medium: Fiber Optics
Diagnostics: Yes, Built-in
Features: Reverse Channel, Diagnostics, Clock Calendar, Switchable Data Rates, Continual Monitoring
Distribution Method: End user
Price: $495
Number Installed to Date: Under 100
Data First Installed: October 1983
(See Vendor Profile Page V-5)

CANOGA DATA SYSTEMS
CSY-300-A-S
Modem Class: Fiber-Optic
Transmission Technique: Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Synchronous 2,400 bps; Asynchronous/ Synchronous 4,000 bps
Interface: RS-449, RS-422, V.35, TC
Transmission Medium: Fiber Optics
Diagnostics: Yes, Built-in
Features: Diagnostics, Continual Monitoring
Distribution Method: End user
Price: $1,500
Number Installed to Date: Under 100
Data First Installed: May 1983

CANOGA DATA SYSTEMS
CSY-306-S
Modem Class: Fiber-Optic
Transmission Technique: Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Synchronous 2,400 bps; Asynchronous/ Synchronous 4,000 bps
Interface: RS-449, RS-422, V.35
Bell-Compatible: 306
Transmission Medium: Fiber Optics
Diagnostics: Yes; Built-in
Features: Reverse Channel, Diagnostics, Switchable Data Rates, Continual Monitoring
Distribution Method: End user
Price: $1,800
Number Installed to Date: 100 - 800
Data First Installed: May 1981

CANOGA DATA SYSTEMS
CSY-306SAX-R
Modem Class: Fiber-Optic
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous/ Synchronous - 2,400 bps, Synchronous - 4,000 bps
Interface: RS-422, RS-423, V.35, T-1, TTL
Bell-Compatible: 306A
Transmission Medium: Fiber Optics
Diagnostics: Yes, Built-in
Features: Clock Calendar, Continual Monitoring
Distribution Method: End user
Price: $1,200
Number Installed to Date: 100 - 800
Data First Installed: May 1983

CATEL
DM 2196
Modem Class: Long-Haul
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 9,600 bps, 14,400 bps
Interface: RS-232C, CCITT V.24
Transmission Medium: Coaxial Cable
Features: Reverse Channel, Diagnostics, Switchable Data Rates, Loopback
Distribution Method: Third-party
Price: $1,995
Number Installed to Date: Under 100
Data First Installed: June 1981
(See Vendor Profile Page V-5)

CERMETEK MICROELECTRONICS
CH1766E/1769
Modem Class: Long-Haul
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps, 1,200 bps
Interface: RS-232C
Bell-Compatible: 103, 113, 212
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-in
Features: Autodial, Autoequalizer, Autorenewer, Alternate Voice/Data, Diagnostics, Switchable Data Rates, Tone Detection
Distribution Method: OEM
Price: $495
(See Vendor Profile Page V-5)

CERMETEK MICROELECTRONICS
INFO-MATE 212A
Modem Class: Long-Haul
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps, Asynchronous/ Synchronous - 1,200 bps
Interface: RS-232C
Bell-Compatible: 103, 113, 212A
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes, Built-in
Features: Autodial, Autoequalizer, Autorenewer, Alternate Voice/Data, Diagnostics, Switchable Data Rates
Distribution Method: End user, Third-party
Price: $595
Number Installed to Date: 100 - 500
Data First Installed: July 1983

CHUBB TELECOMMUNICATIONS
TURBO MUX
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 2,400 bps
Interface: RS-232C
Transmission Medium: Voice-Grade Lines
Diagnostics: No
Features: Autorenewer, Reverse Channel, Diagnostics
Distribution Method: Third-party
Price: $995
Data First Installed: July 1983
(See Vendor Profile Page V-5)

CHUBB TELECOMMUNICATIONS
TURBO 212A
Modem Class: Long-Haul
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous/ Synchronous - 2,400 bps
Interface: RS-232C
Bell-Compatible: 212
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-in
Features: Autodial, Autoequalizer, Autorenewer, Alternate Voice/Data, Reverse Channel, Diagnostics, Multiport, Switchable Data Rates
Distribution Method: Third-party
Price: $995

CODENOLL TECHNOLOGY CORP.
CODELINK 10
Modem Class: Fiber-Optic
Transmission Technique: Asynchronous, Synchronous
Transmission Rate: Synchronous - 10M bps
Interface: RS-232C, RS-449, RS-422, TTL
Transmission Medium: Fiber Optics
Diagnostics: No
Features: Autorenewer, Switchable Data Rates
Distribution Method: End user, OEM, Third-party
Price: $500
Number Installed to Date: Under 100
Data First Installed: January 1983
(See Vendor Profile Page V-5)

CODENOLL TECHNOLOGY CORP.
CODELINK 90
Modem Class: Fiber-Optic
Transmission Technique: Asynchronous, Synchronous
Transmission Rate: Asynchronous - 20,000 bps
Interface: RS-232C, RS-449, RS-422, TTL
Transmission Medium: Fiber Optics
Features: Autorenewer, Switchable Data Rates
Distribution Method: End user, OEM, Third-party
Price: $500
Number Installed to Date: Under 100
Data First Installed: January 1983

CODENOLL TECHNOLOGY CORP.
CODELINK 90
Modem Class: Fiber-Optic
Transmission Technique: Asynchronous, Synchronous
Transmission Rate: Synchronous - 50M bps

Modems

Interfaces: RS-232C, RS-449, RS-422, TTL
Transmission Medium: Fiber Optics
Diagnostics: No
Distribution Method: End user, OEM, Third-party
Price: $500
Number Installed to Date: Under 100
Date First Installed: January 1983

CODENOLL TECHNOLOGY CORP.
CODELINK 100
Modem Class: Fiber-Optic
Transmission Technique: Asynchronous, Synchronous
Transmission Rate: Synchronous - 150M bps
Interfaces: RS-232C, RS-449, RS-422, TTL
Transmission Medium: Fiber Optics
Diagnostics: No
Features: Autorenewer, Switchable Data Rates
Distribution Method: End user, OEM, Third-party
Price: $3,000
Number Installed to Date: Under 100
Date First Installed: January 1983

CODEX CORP.
224 DATA MODEM
Modem Class: Long-Haul
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous/Synchronous - 1,200 bps, 2,400 bps
Interfaces: RS-232C, CCITT V.24, CCITT V.28, 2-Wire
Bell-Compatible: 212
Transmission Medium: Voice-Grade Lines
Features: Autoequalizer, Autorenewer, Fallback
Distribution Method: End user
Number Installed to Date: 5,000 - 10,000
(See Vendor Profile Page V-5)

CODEX CORP.
224/V.22 BIS DATA MODEM
Modem Class: Long-Haul
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous/Synchronous - 1,200 bps, 2,400 bps
Interfaces: RS-232C, CCITT V.22, CCITT V.24, CCITT V.28
Bell-Compatible: 212
Transmission Medium: Voice-Grade Lines
Features: Autoequalizer, Autorenewer, Diagnostics, Switchable Data Rates
Distribution Method: End user
Date First Installed: March 1983

CODEX CORP.
5916R MULTIPLE MODEM ENCLOSURE
Modem Class: Long-Haul
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous/Synchronous - 300 bps, 1,200 bps; Synchronous 2,400 bps
Interfaces: RS-232C, RS-366
Bell-Compatible: 103, 201, 202
Transmission Medium: Voice-Grade Lines
Features: Autodial
Distribution Method: End user

CODEX CORP.
5103/5113 DATA MODEMS
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps
Interfaces: RS-232C, CCITT V.24, CCITT V.28
Bell-Compatible: 103, 113
Transmission Medium: Voice-Grade Lines
Features: Autodial, Autorenewer, Alternate Voice/Data, Local Loopback
Distribution Method: End user

CODEX CORP.
5301R DATA MODEM
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Synchronous 1,200 bps, 2,400 bps
Interfaces: RS-232C, CCITT V.24, CCITT V.28
Bell-Compatible: 201
Features: Autodial, Autorenewer, Alternate Voice/Data, Diagnostics, Clock Calendar
Distribution Method: End user

CODEX CORP.
9302R V.29
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps, 600 bps, 1,200 bps
Interfaces: RS-232C, CCITT V.24, CCITT V.28, 2 or 4-Wire
Bell-Compatible: 202
Transmission Medium: Voice-Grade Lines
Features: Autodial, Local/Remote Loopback
Distribution Method: End user

CODEX CORP.
9309R DATA MODEM
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Synchronous 4,800 bps
Interfaces: RS-232C, CCITT V.24, CCITT V.28
Bell-Compatible: 208
Transmission Medium: Voice-Grade Lines
Features: Autoequalizer, Autorenewer, Diagnostics, Clock Calendar
Distribution Method: End user
Number Installed to Date: 5,000 - 10,000

CODEX CORP.
6312/ACU
Modem Class: Long-Haul
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous 300 bps, Asynchronous/Synchronous 1,200 bps
Interfaces: RS-232C, CCITT V.24
Bell-Compatible: 103, 212
Transmission Medium: Voice-Grade Lines
Features: Autodial, Built-In Abort Timer

CODEX CORP.
9213R
Modem Class: Long-Haul
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 300 bps; Asynchronous/Synchronous 1,800 bps
Interfaces: RS-232C, CCITT V.24, CCITT V.28, 2-Wire
Bell-Compatible: 103, 113, 212
Transmission Medium: Voice-Grade Lines
Features: Autodial, Alternate Voice/Data, Switchable Data Rates, Automatic Speed Sensing
Distribution Method: End user

CODEX CORP.
9300 GDM
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Synchronous - 56,000 bps, Asynchronous/Synchronous - 48,000 bps, 50,000 bps, 64,000 bps
Interfaces: V.35
Bell-Compatible: 303
Transmission Medium: Wide-Band Lines
Features: Diagnostics, Clock Calendar
Distribution Method: End user

CODEX CORP.
CS 48FP
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Synchronous - 2,400 bps, 4,800 bps
Interfaces: RS-232C, CCITT V.24, RS-423
Transmission Medium: Voice-Grade Lines
Features: Diagnostics
Distribution Method: End user
Price: $4,175
Number Installed to Date: 5,000 - 10,000

CODEX CORP.
CS 96FP
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Synchronous - 4,800 bps, 9,600 bps
Interfaces: RS-232C, CCITT V.24, CCITT V.28, RS-423
Transmission Medium: Voice-Grade Lines
Features: Autoequalizer, Diagnostics
Distribution Method: End user
Price: $7,475

CODEX CORP.
CS 4800
Modem Class: Long-Haul
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Synchronous - 2,400 bps, 4,800 bps, 9,600 bps; Asynchronous/Synchronous 7,200 bps
Interfaces: RS-232C, CCITT V.24, CCITT V.28, CCITT V.29, RS-423
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-In
Features: Autoequalizer, Alternate Voice/Data, Diagnostics, Clock Calendar, Fallback, Switchable Data Rates, Integral Four-Channel Mux
Distribution Method: End user
Price: $4,675
Number Installed to Date: 5,000 - 10,000

CODEX CORP.
CS 9600
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Synchronous - 2,400 bps, 4,800 bps, 9,600 bps, Asynchronous/Synchronous 7,200 bps
Interfaces: RS-232C, CCITT V.24, CCITT V.28, CCITT V.29
Transmission Medium: Voice-Grade Lines
Features: Autoequalizer, Alternate Voice/Data, Diagnostics, Clock Calendar, Fallback, Switchable Data Rates, Integral Four-Channel Mux
Distribution Method: End user
Price: $7,975
Number Installed to Date: 5,000 - 10,000

CODEX CORP.
LSI 24/34
Modem Class: Long-Haul
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous/Synchronous 2,400 bps
Interfaces: RS-232C, CCITT V.24, CCITT V.28
Transmission Medium: Voice-Grade Lines
Features: Autodial, Autoequalizer, Autorenewer, Alternate Voice/Data,

Clock Calendar, Local Loopback
Distribution Method: End user
Price: $2,650

CODEX CORP.
LSI 48FP
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Synchronous 2,400 bps, 4,800 bps
Interface: RS-232C, CCITT V.24, CCITT V.28, MIL 188C
Transmission Medium: Voice-Grade Lines
Features: Autoequalizer, Diagnostics, Clock Calendar, Fallback
Distribution Method: End user
Price: $3,500
Number Installed to Date: 10,000 - 50,000

CODEX CORP.
LSI 48I
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Synchronous - 4,800 bps
Interface: RS-232C, CCITT V.24, MIL 188C
Transmission Medium: Voice-Grade Lines
Features: Autoequalizer, Clock Calendar, Fallback, Local/Remote Loopback
Distribution Method: End user
Price: $3,500

CODEX CORP.
LSI 48/V.27 SHS/TER
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous - 2,400 bps, 4,800 bps
Interface: RS-232C, CCITT V.24, CCITT V.27, CCITT V.28
Transmission Medium: Voice-Grade Lines
Features: Autoequalizer, Autorenewer, Alternate Voice/Data, Reverse Channel, Diagnostics, Clock Calendar, Fallback, Local/Remote Loopback
Distribution Method: End user
Price: $3,500
Number Installed to Date: 5,000 - 10,000

CODEX CORP.
LSI 96FP
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Synchronous - 9,600 bps, Asynchronous/ Synchronous - 7,200 bps
Interface: RS-232C, CCITT V.24, CCITT V.28, MIL 188C
Transmission Medium: Voice-Grade Lines
Features: Autoequalizer, Alternate Voice/Data, Diagnostics, Clock Calendar, Fallback
Distribution Method: End user
Number Installed to Date: 10,000 - 50,000

CODEX CORP.
LSI 96/V.29
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Synchronous - 4,800 bps, 9,600 bps
Interface: RS-232C, CCITT V.24, CCITT V.28
Transmission Medium: Voice-Grade Lines
Features: Autoequalizer, Alternate Voice/Data, Diagnostics, Clock Calendar, Fallback
Distribution Method: End user
Number Installed to Date: 10,000 - 50,000

CODEX CORP.
LSI 4800
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Synchronous - 2,400 bps, 4,800 bps
Interface: RS-232C, CCITT V.24, CCITT V.28, MIL 188C
Transmission Medium: Voice-Grade Lines
Features: Autoequalizer, Alternate Voice/Data, Reverse Channel, Clock Calendar, Fallback, Switchable Data Rates
Distribution Method: End user
Price: $3,500
Number Installed to Date: 10,000 - 50,000

CODEX CORP.
LSI 9600
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Synchronous 4,800 bps, 9,600 bps; Asynchronous/Synchronous - 7,200 bps
Interface: RS-232C, CCITT V.24, CCITT V.28, MIL 188C
Transmission Medium: Voice-Grade Lines
Features: Autoequalizer, Alternate Voice/Data, Reverse Channel, Diagnostics, Clock Calendar, Fallback, Switchable Data Rates
Distribution Method: End user
Price: $6,800
Number Installed to Date: 10,000 - 50,000

CODEX CORP.
LSI 896/V.29
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Synchronous - 4,800 bps, 9,600 bps
Interface: RS-232C, CCITT V.24, CCITT V.28
Transmission Medium: Voice-Grade Lines
Features: Autoequalizer, Diagnostics, Clock Calendar, Fallback
Distribution Method: End user
Price: $6,800
Number Installed to Date: 10,000 - 50,000

CODEX CORP.
LSI 9600
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Synchronous - 4,800 bps, 9,600 bps; Asynchronous/Synchronous 7,200 bps
Interface: RS-232C, CCITT V.24, CCITT V.28, 4-Wire
Bell-Compatible: None
Transmission Medium: Voice-Grade Lines
Features: Autoequalizer, Diagnostics, Clock Calendar, Fallback
Distribution Method: End user

CODEX CORP.
LSI 9600
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Synchronous - 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps
Interface: RS-232C, CCITT V.24, CCITT V.28
Transmission Medium: Voice-Grade Lines
Features: Autoequalizer, Diagnostics, Clock Calendar, Fallback
Distribution Method: End user
Number Installed to Date: 10,000 - 50,000

CODEX CORP.
MX 3400 DATA MODEM
Modem Class: Long-Haul
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Synchronous - 1,200 bps, Asynchronous/ Synchronous - 2,400 bps
Interface: RS-232C, CCITT V.24, CCITT V.25, CCITT V.28, MIL 188C
Bell-Compatible: 201
Transmission Medium: Voice-Grade Lines
Features: Autodial, Autoequalizer, Autorenewer, Diagnostics, Fallback
Distribution Method: End user
Number Installed to Date: 5,000 - 10,000

CODEX CORP.
SP 14.4
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Synchronous - 1,200 bps, 9,600 bps, 19,200 bps
Interface: RS-232C, CCITT V.24, CCITT V.29
Transmission Medium: Voice-Grade Lines
Features: Autoequalizer, Diagnostics, Fallback
Number Installed to Date: 500 - 1,000

CODEX CORP.
9180 LDSU
Modem Class: Short-Haul
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous - 19,200 bps
Interface: RS-232C, CCITT V.24
Bell-Compatible: 43401
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-in
Features: Autoequalizer
Number Installed to Date: 500 - 1,000
Date First Installed: December 1992

CODEX CORP.
9200 LDSU
Modem Class: Short-Haul
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Synchronous - 2,400 bps, 4,800 bps, 9,600 bps
Interface: RS-232C, CCITT V.24
Transmission Medium: Twisted Pair
Features: Autoequalizer
Number Installed to Date: 9,000 - 10,000
Date First Installed: March 1992

COMSENT COMMUNICATIONS SYSTEMS CORP.
SPM-24A
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex
Transmission Rate: Asynchronous - 300 bps
Interface: RS-232C
Transmission Medium: Voice-Grade Lines
Features: Diagnostics, Simulated Voice/Data
Distribution Method: End user, OEM
Price: $500
Number Installed to Date: Under 100
Date First Installed: August 1983
(See Vendor Profile Page V-5)

COMSENT COMMUNICATIONS SYSTEMS CORP.
LINEMATE 192
Modem Class: Short-Haul

Modems

Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous/ Synchronous - 14,400 bps
Interface: RS-232C
Transmission Medium: 2-Wire Nonloaded
Diagnostics: No
Features: Diagnostics, Switchable Data Rates, Simulated Voice/Data
Distribution Method: End user, Third-party
Price: $450
Number Installed to Date: Under 100
Date First Installed: September 1983

COMI DATA
151A2-13
Modem Class: Coupler
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps
Interface: RS-232C
Bell-Compatible: 103
Transmission Medium: Voice-Grade Lines
Features: Carrier Light
Distribution Method: End user
Price: $127
Date First Installed: January 1983
(See Vendor Profile Page V-5)

COMI DATA
350/353/354F3-72
Modem Class: Line Driver
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps, 14,400 bps
Interface: RS-232C
Transmission Medium: Metallic Circuit
Features: Diagnostics
Distribution Method: End user
Price: $117 to $296
Date First Installed: January 1981

COMI DATA
154E2-14
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous - 300 bps
Interface: RS-232C
Bell-Compatible: 103
Transmission Medium: Voice-Grade Lines
Diagnostics: No
Distribution Method: End user
Price: $127
Date First Installed: January 1978

COMI DATA
208 A/B
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Synchronous - 4,800 bps
Interface: RS-232C
Bell-Compatible: 208
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes, Built-in
Features: Autoequalizer, Autoanswer, Alternate Voice/Data, Diagnostics
Distribution Method: End user
Price: $1,697
Date First Installed: January 1981

COMI DATA
212E2-32
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 1,200 bps
Interface: RS-232C
Bell-Compatible: 212
Transmission Medium: Voice-Grade Lines
Diagnostics: No
Distribution Method: End user
Price: $377
Date First Installed: March 1983

COMI DATA
302A2-12
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous - 300 bps
Interface: RS-232C
Bell-Compatible: 103
Transmission Medium: Voice-Grade Lines
Diagnostics: No
Features: Originate Mode Only
Distribution Method: End user
Price: $157
Date First Installed: January 1970

COMI DATA
302A2-33
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous 300 bps
Interface: RS-232C
Bell-Compatible: 103
Transmission Medium: Voice-Grade Lines
Features: Originate/Answer
Distribution Method: End user
Price: $187
Date First Installed: January 1970

COMI DATA
302B2-13
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous - 300 bps
Interface: RS-232C
Transmission Medium: Voice-Grade Lines
Diagnostics: No
Features: Originates Only
Distribution Method: End user
Price: $177
Date First Installed: January 1970

COMI DATA
302B2-33
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous - 300 bps
Interface: RS-232C
Bell-Compatible: 103
Transmission Medium: Voice-Grade Lines
Diagnostics: No
Features: Originate/Answer
Distribution Method: End user
Price: $247
Date First Installed: January 1970

COMI DATA
302C2-13L
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous - 300 bps
Interface: RS-232C
Bell-Compatible: 103
Transmission Medium: Voice-Grade Lines
Diagnostics: No
Distribution Method: End user
Price: $297
Date First Installed: January 1977

COMI DATA
306E2-13
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps
Interface: RS-232C
Bell-Compatible: 103
Transmission Medium: Voice-Grade Lines
Diagnostics: No
Features: Originates Only
Distribution Method: End user
Price: $117
Date First Installed: January 1981

COMI DATA
312E2-42
Modem Class: Long-Haul
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous/ Synchronous - 1,200 bps
Interface: RS-232C
Bell-Compatible: 212
Transmission Medium: Voice-Grade Lines
Diagnostics: No
Features: Autoanswer, Digital/ Analog Loopback
Distribution Method: End user
Price: $367
Date First Installed: January 1982

COMI DATA
312F2-33L
Modem Class: Long-Haul
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous/ Synchronous - 1,200 bps
Interface: RS-232C
Bell-Compatible: 212
Features: Digital/Analog Loopback
Distribution Method: End user
Price: $337
Date First Installed: January 1982

COMI DATA
390E2-13L
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 300 bps
Interface: RS-232C
Bell-Compatible: 103
Transmission Medium: Voice-Grade Lines
Diagnostics: No
Features: Manual Answer
Distribution Method: End user
Price: $137
Date First Installed: January 1978

COMI DATA
330E2-43L
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 300 bps
Interface: RS-232C
Bell-Compatible: 103
Transmission Medium: Voice-Grade Lines
Diagnostics: No
Features: Autoanswer
Distribution Method: End user
Price: $197
Date First Installed: January 1978

COMI DATA
332E2-13L
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps, 600 bps, 1,200 bps
Interface: RS-232C
Bell-Compatible: 202
Transmission Medium: Voice-Grade Lines
Diagnostics: No
Distribution Method: End user
Price: $187
Date First Installed: January 1979

COMI DATA
332E2-43L
Modem Class: Long-Haul
Transmission Technique: Asynchronous

Transmission Mode: Half-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps, 600 bps, 1,200 bps
Interface: RS-232C
Bell-Compatible: 202
Transmission Medium: Voice-Grade Lines
Diagnostics: No
Features: Autoanswer
Distribution Method: End user
Price: $247
Date First Installed: January 1979

COM DATA
33SF7/33SF9
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Synchronous - 300 bps, 1,200 bps
Interface: RS-232C
Bell-Compatible: 103
Transmission Medium: Voice-Grade Lines
Diagnostics: No
Features: Alternate Voice/Data, Switchable Data Rates, Point to Point
Distribution Method: End user
Price: $591
Date First Installed: January 1981

COM DATA
334E2-12L
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex
Transmission Rate: Synchronous - 2,400 bps
Interface: RS-232C
Bell-Compatible: 201
Transmission Medium: Voice-Grade Lines
Diagnostics: No
Features: Autoequalizer, Autoanswer, Busy Out
Distribution Method: End user
Price: $537
Date First Installed: January 1981

COM DATA
334E2-43L
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex
Transmission Rate: Synchronous - 2,400 bps
Interface: RS-232C
Bell-Compatible: 201
Transmission Medium: Voice-Grade Lines
Diagnostics: No
Features: Autoequalizer, Busy Out
Distribution Method: End user
Price: $587
Date First Installed: January 1981

COM DATA
378E2-12 PHONE2
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 300 bps
Interface: RS-232C
Bell-Compatible: 103
Transmission Medium: Voice-Grade Lines
Diagnostics: No
Features: Autoanswer, Alternate Voice/Data, Switchable Data Rates
Distribution Method: End user
Price: $227
Date First Installed: January 1981

COM DATA
37962-48
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 300 bps
Interface: RS-232C
Bell-Compatible: 103
Transmission Medium: Voice-Grade Lines
Features: Autoanswer, Alternate Voice/Data, One Number Dialer
Distribution Method: End user
Price: $277
Date First Installed: January 1981

COM DATA
P 212 A
Modem Class: Long-Haul
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps; Asynchronous/Synchronous - 1,200 bps
Interface: RS-232C
Bell-Compatible: 212
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-In
Features: Diagnostics
Distribution Method: End user
Price: $485 to $595
Date First Installed: January 1981

COM DATA
ME-2D
Modem Class: Modem Eliminator
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous/Synchronous - 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps, 14,400 bps
Interface: RS-232C
Transmission Medium: Cables
Distribution Method: End user
Price: $510
Date First Installed: January 1983

COMDESIGN, INC.
TM-1000
Modem Class: Long-Haul
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 300 bps; Asynchronous/Synchronous - 1,200 bps
Interface: RS-232C, CCITT V.24
Bell-Compatible: 103, 113, 212A
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-In
Features: Autodial, Autoequalizer, Autoanswer, Switchable Data Rates, Abort Timer
Distribution Method: End user, Third-party
Price: $750
Number Installed to Date: Under 100
Date First Installed: April 1983
(See Vendor Profile Page V-6)

COMDESIGN, INC.
TM-2400
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Synchronous - 2,400 bps
Interface: RS-232C, CCITT V.24
Bell-Compatible: 201B
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-In
Features: Diagnostics, Clock Calendar
Distribution Method: Third-party
Price: $750
Number Installed to Date: Under 100
Date First Installed: January 1983

COMDESIGN, INC.
TM-4800
Modem Class: Long-Haul
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous/Synchronous - 4,800 bps
Interface: RS-232C, CCITT V.24
Bell-Compatible: 208, 208B
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-In
Features: Autoequalizer, Autoanswer, Diagnostics, Clock Calendar
Distribution Method: End user, Third-party
Price: $1,750
Number Installed to Date: Under 100
Date First Installed: February 1983

COMDESIGN, INC.
TM-4800
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Synchronous - 4,800 bps, 9,600 bps, Asynchronous/Synchronous - 7,200 bps
Interface: RS-232C, CCITT V.24, CCITT V.29
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes, Built-In
Features: Autoequaliser, Clock Calendar, Fallback
Distribution Method: End user, Third-party
Price: $2,750
Number Installed to Date: Under 100
Date First Installed: February 1983

COMMODORE BUSINESS MACHINES, INC.
C-1650 AUTOMATIC MODEM
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous - 300 bps
Interface: RS-232C
Transmission Medium: Voice-Grade Lines
Diagnostics: No
Features: Autodial, Autoanswer, Alternate Voice/Data, Reverse Channel
Distribution Method: End user, Third-party
Number Installed to Date: 500 - 1,000
Date First Installed: August 1983.
(See Vendor Profile Page V-6)

COMMODORE BUSINESS MACHINES, INC.
C-1660
Modem Class: Short-Haul
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 300 bps
Interface: RS-232C
Transmission Medium: Voice-Grade Lines
Features: Reverse Channel, Switchable Data Rates
Date First Installed: May 1983

COMMUNICATION RESEARCH CORP.
100
Modem Class: Short-Haul
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps
Interface: RS-232C, AC Power Line
Transmission Medium: AC Power Line
Features: Multiport
Distribution Method: Third-party
Price: $319
Number Installed to Date: 500 - 1,000
Date First Installed: July 1982
(See Vendor Profile Page V-6)

COMMUNICATION RESEARCH CORP.
400
Modem Class: Short-Haul
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps
Interface: RS-232C, AC Power Line
Transmission Medium: AC Power Line
Features: Multiport

Modems

Distribution Method: Third-party
Price: $475
Number Installed to Date: 100 - 500
Date First Installed: February 1983

COMPLEX SYSTEMS, INC.
LS 96K
Modem Class: Short-Haul
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Synchronous - 56,000 bps
Interface: CCITT V.35
Transmission Medium: Voice-Grade Lines, Digital Links
Diagnostics: Yes, Built-In
Features: Diagnostics
Distribution Method: Third-party
Price: $850
Number Installed to Date: Under 100
Date First Installed: December 1983
(See Vendor Profile Page V-6)

COMPLEX SYSTEMS, INC.
LVS 76.8
Modem Class: Short-Haul
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Synchronous - 2,400 bps, 4,800 bps, 9,600 bps, 14,400 bps, 19,200 bps
Interface: RS-232C, CCITT V.35
Transmission Medium: Voice-Grade Lines, Digital Links
Diagnostics: Yes; Built-In
Features: Diagnostics, Switchable Data Rates
Distribution Method: Third-party
Price: $850
Number Installed to Date: Under 100
Date First Installed: November 1983

COMPRE COMMUNICATIONS, INC.
LH96
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Synchronous - 600 bps; Asynchronous/ Synchronous - 7,200 bps
Interface: RS-232C
Bell-Compatible: 209
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Add-on
Features: Autoequalizer, Reverse Channel, Diagnostics, Fallback, Switchable Data Rates
Distribution Method: End user, Third-party
Price: $2,650
Number Installed to Date: Under 100
Date First Installed: May 1981
(See Vendor Profile Page V-6)

COMPUTER COMMUNICATIONS SPECIALISTS, INC.
AUDIO MODEM
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex
Transmission Rate: Asynchronous - 1,200 bps
Bell-Compatible: 202
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes, Add-on
Features: Autodial, Autoanswer, Alternate Voice/Data, Diagnostics, Clock Calendar, Switchable Data Rates
Distribution Method: End user
Price: $4,895
Number Installed to Date: Under 100
Date First Installed: 1982
(See Vendor Profile Page V-6)

COMPUTER DEVELOPMENT, INC.
ET SERIES INTELLIGENT MODEMS
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex, Full-Duplex, Simplex
Transmission Rate: Asynchronous - 300 bps, 1,200 bps
Interface: RS-232C, CCITT V.23
Bell-Compatible: 103, 212
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-In
Features: Autodial, Autoanswer, Alternate Voice/Data, Reverse Channel, Diagnostics, Switchable Data Rates
Distribution Method: OEM, Third-party
Price: $495 to $695
Number Installed to Date: Under 100
Date First Installed: November 1983
(See Vendor Profile Page V-6)

COMPUTER DEVELOPMENT, INC.
ETC-EXECUTIVE TELECOMMUNICATIONS COMPUTER
Modem Class: Long-Haul
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous - 300 bps; Asynchronous/ Synchronous 1,200 bps
Interface: RS-232C, CCITT V.23
Bell-Compatible: 212
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-In
Features: Autodial, Autoanswer, Alternate Voice/Data, Reverse Channel, Diagnostics, Clock Calendar, Switchable Data Rates
Distribution Method: OEM, Third-party
Price: $1,095 to $1,295
Date First Installed: August 1983

COMPUTER DEVELOPMENT, INC.
EXECUTIVE TELECOM COMPUTER (MULTI-USER)
Modem Class: Long-Haul
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Half-Duplex, Full-Duplex, Simplex
Transmission Rate: Asynchronous - 300 bps, Asynchronous/ Synchronous - 1,200 bps
Interface: RS-232C
Bell-Compatible: 103, 212
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-In
Features: Autodial, Autoanswer, Alternate Voice/Data, Reverse Channel, Diagnostics, Multiport, Clock Calendar, Switchable Data Rates
Distribution Method: OEM, Third-party
Price: $1,895

COMPUTROL
30-0078
Modem Class: Line Driver
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous - 2,000 bps
Interface: TTL
Transmission Medium: Coaxial Cable
Distribution Method: End user, OEM
Price: $150 to $200
Number Installed to Date: 5,000 - 10,000
Date First Installed: January 1979
(See Vendor Profile Page V-7)

COMPUTROL
30-0080
Modem Class: Line Driver
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous/ Synchronous
Interface: TTL
Distribution Method: End user, OEM
Price: $150 to $200

COMREX INTERNATIONAL
CR-108 COMMUNICATOR
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 300 bps
Bell-Compatible: 103
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-In
Features: Autodial
Price: $159
Date First Installed: November 1983
(See Vendor Profile Page V-7)

COMSPEC, INC.
DATATALKER 9,600C
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Synchronous - 9,600 bps
Interface: RS-232C
Transmission Medium: Voice-Grade Lines, Radio Links
Diagnostics: Yes; Built-In
Features: Autodial, Autoequalizer, Autoanswer, Alternate Voice/Data, Diagnostics, Fallback, Switchable Data Rates, Autocall Forward
Distribution Method: End user
Number Installed to Date: Under 100
Date First Installed: September 1983
(See Vendor Profile Page V-7)

COMTECH DATA CORP.
GS 56
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Synchronous - 56,000 bps
Interface: CCITT V.35, V.36
Bell-Compatible: 309C
Transmission Medium: Group Spectrums
Features: Diagnostics
Distribution Method: End user
Price: $8,000
Number Installed to Date: 100 - 500
Date First Installed: 1979
(See Vendor Profile Page V-7)

COMTECH DATA CORP.
GS 168
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous/ Synchronous - 168,000 bps
Interface: RS-449, CCITT V.36
Bell-Compatible: 309C
Transmission Medium: Group Spectrums
Features: Autoequalizer, Diagnostics, Multiport, Fallback, Switchable Data Rates
Distribution Method: End user
Price: $17,500
Number Installed to Date: Under 100
Date First Installed: December 1983

COMTECH DATA CORP.
M700
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous/ Synchronous - 56,000 bps
Interface: RS-449, CCITT V.35, TTL
Transmission Medium: Microwave Systems
Diagnostics: Yes; Built-In
Features: Diagnostics
Distribution Method: End user, OEM
Price: $4,850
Number Installed to Date: Under 100
Date First Installed: March 1981

COMTECH DATA CORP.
SM200A
Modem Class: Long-Haul
Transmission Technique: Synchronous

Transmission Mode: Full-Duplex
Transmission Rate: Synchronous - 56,000 bps
Interface: RS-449, CCITT V.35, TTL
Transmission Medium: Satellite
Diagnostics: Yes; Add-on
Features: Autoequalizer, Fallback
Distribution Method: End user
Price: $14,300
Number Installed to Date: 500 - 1,000
Date First Installed: January 1980

COMTECH DATA CORP.
6816
Modem Class: Short-Haul
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous/ Synchronous - 2M bps
Interface: RS-449, CCITT V.35
Transmission Medium: Twisted-Pair
Diagnostics: No
Features: Switchable Data Rates
Distributing Method: End user
Price: $2,000
Number Installed to Date: Under 100
Date First Installed: March 1983

COMTECH DATA CORP.
MF 65
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Synchronous - 65,000 bps
Interface: RS-449, CCITT V.35, V.36
Transmission Medium: Coaxial Cables
Diagnostics: No
Features: Autoequalizer, Diagnostics
Distribution Method: End user, OEM
Price: $4,650
Number Installed to Date: 100 - 500
Date First Installed: January 1981

COMSTECH SYSTEMS, INC.
MODEMULATOR 462A
Modem Class: Modem Eliminator
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous/ Synchronous - 14,400 bps
Interface: RS-232C
Transmission Medium: RS-232 Cable
Diagnostics: No
Features: Diagnostics, Switchable Data Rates, Loopback
Distribution Method: End user
Price: $360
Number Installed to Date: Under 100
Date First Installed: February 1983

CONCORD DATA SYSTEMS, INC.
CDS 212
Modem Class: Long-Haul
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous/ Synchronous - 1,200 bps
Interface: RS-232C
Bell-Compatible: 212
Transmission Medium: Voice-Grade Lines
Diagnostics: No
Features: Autoequalizer, Autoanswer, Diagnostics, Fallback, Switchable Data Rates
Distribution Method: End user, OEM, Third-party
Price: $700
Number Installed to Date: Under 100
Date First Installed: November 1981
(See Vendor Profile Page V-7)

CONCORD DATA SYSTEMS, INC.
CDS 224
Modem Class: Long-Haul
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous/ Synchronous - 2,400 bps
Interface: RS-232C
Transmission Medium: Voice-Grade Line
Diagnostics: Yes; Built-in
Features: Autodial, Autoequalizer, Autoanswer, Diagnostics, Fallback, Switchable Data Rates
Distribution Method: Third-party
Price: $995 to $1,195
Number Installed to Date: 500 - 1,000
Date First Installed: November 1982

CONCORD DATA SYSTEMS, INC.
CDS 224 TM
Modem Class: Long-Haul
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous/ Synchronous - 1,200 bps, 2,400 bps
Interface: RS-232C
Transmission Medium: Voice-Grade Lines
Diagnostics: No
Features: Autoequalizer, Autoanswer, Diagnostics, Fallback, Switchable Data Rates
Distribution Method: End user, OEM, Third-party
Price: $995
Number Installed to Date: 500 - 1,000
Date First Installed: March 1983

CONCORD DATA SYSTEMS, INC.
CDS 224 TM AUTODIAL
Modem Class: Long-Haul
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous/ Synchronous - 1,200 bps, 2,400 bps
Interface: RS-232C
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-in
Features: Autodial, Autoequalizer, Autoanswer, Diagnostics, Fallback, Switchable Data Rates
Distribution Method: End user, OEM, Third-party
Price: $1,195
Number Installed to Date: Under 100
Date First Installed: January 1983

CONCORD DATA SYSTEMS, INC.
CDS V.22
Modem Class: Long-Haul
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous/ Synchronous - 300 bps, 600 bps, 1,200 bps
Interface: CCITT V.24, CCITT V.28
Bell-Compatible: 212
Transmission Medium: Voice-Grade Lines
Diagnostics: No
Features: Autoequalizer, Autoanswer, Diagnostics, Fallback, Switchable Data Rates
Distribution Method: OEM, Third-party
Price: $660
Number Installed to Date: 5,000 - 10,000
Date First Installed: November 1981

CONCORD DATA SYSTEMS, INC.
CDS V.22 BIS
Modem Class: Long-Haul
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous/ Synchronous - 1,200 bps, 2,400 bps
Interface: CCITT V.24, CCITT V.28
Transmission Medium: Voice-Grade Lines
Diagnostics: No
Features: Autoequalizer, Autoanswer, Diagnostics, Fallback, Switchable Data Rates
Distribution Method: End user, OEM, Third-party
Price: $995
Number Installed to Date: 500 - 1,000
Date First Installed: April 1983

CONCORD DATA SYSTEMS, INC.
CDS V.22 BIS AUTODIAL
Modem Class: Long-Haul
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous/ Synchronous - 1,200 bps, 2,400 bps
Interface: CCITT V.24, V.28
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-in
Features: Autodial, Autoequalizer, Autoanswer, Diagnostics, Fallback, Switchable Data Rates
Distribution Method: OEM, Third-party
Price: $1,195
Number Installed to Date: Under 100
Date First Installed: August 1983

CROSSCOM, INC.
MDM-12000
Modem Class: Long-Haul
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous/ Synchronous - 300 bps, 1,200 bps
Interface: RS-232C
Bell-Compatible: 212
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-in
Features: Autodial, Autoanswer, Reverse Channel, Diagnostics
Distribution Method: OEM, Third-party
Price: $1,495
Date First Installed: 1983
(See Vendor Profile Page V-9)

DATA CONTROL SYSTEMS
CCM COAXIAL CABLE MODEM
Modem Class: Short-Haul
Transmission Technique: Asynchronous, Synchronous
Transmission Rate: Asynchronous/ Synchronous - 1,200 bps, 1,800 bps, 4,800 bps, 9,800 bps, 14,400 bps; Synchronous - 2,400 bps
Interface: RS-232C, RS-422
Transmission Medium: Coaxial, Triaxial Cables
Diagnostics: Yes; Built-in
Features: Reverse Channel, Diagnostics, Switchable Data Rates
Distribution Method: End user, Third-party
Price: $165 to $875
Number Installed to Date: 500 - 1,000
Date First Installed: 1978
(See Vendor Profile Page V-9)

DATA CONTROL SYSTEMS
SR162
Modem Class: Short-Haul
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex, Full-Duplex, Simplex
Transmission Rate: Asynchronous - 1,200 bps, 2,400 bps, 4,800 bps, 9,600 bps, 14,400 bps
Interface: RS-232C, RS-422
Transmission Medium: Metallic Circuit
Diagnostics: Yes; Built-in
Features: Reverse Channel, Diagnostics, Switchable Data Rates
Distribution Method: End user, Third-party
Price: $165 to $875
Number Installed to Date: 500 - 1,000
Date First Installed: 1978

DATA CONTROL SYSTEMS
SR129
Modem Class: Short-Haul
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex, Full-Duplex, Simplex
Transmission Rate: Synchronous 1,200 bps, 2,400 bps, 4,800 bps, 9,600 bps, 14,400 bps
Interface: RS-232C, RS-422
Transmission Medium: Metallic Circuit
Diagnostics: Yes, Built-in
Features: Reverse Channel,

Diagnostics, Switchable Data Rates
Distribution Method: End user, Third-party
Price: $165 to $675
Number Installed to Date: Under 100
Date First Installed: 1983

DATA CONTROL SYSTEMS SR202
Modem Class: Short-Haul
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex, Full-Duplex, Simplex
Transmission Rate: Synchronous - 1,200 bps, 2,400 bps, 4,800 bps, 9,600 bps, 14,400 bps
Interface: RS-232C, RS-422
Transmission Medium: Metallic Circuit
Diagnostics: Yes; Built-in
Features: Reverse Channel, Diagnostics, Switchable Data Rates
Distribution Method: End user, Third-party
Price: $165 to $675
Number Installed to Date: 500 - 1,000
Date First Installed: 1978

DATA CONTROL SYSTEMS RAM
Modem Class: Power Line Carrier
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Half-Duplex, Full-Duplex, Simplex
Transmission Rate: Asynchronous/ Synchronous - 1,200 bps
Interface: RS-232C, RS-422
Transmission Medium: Power Line Carrier
Diagnostics: Yes; Built-in
Features: Reverse Channel, Diagnostics, Switchable Data Rates
Distribution Method: End user, Third-party
Price: $165 to $675
Number Installed to Date: 500 - 1,000
Date First Installed: 1978

DATAGRAM CORP. D 9600
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 4,800 bps
Interface: RS-232C, CCITT V.24
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-in
Features: Autoequalizer, Diagnostics, Fallback, Switchable Data Rates
Distribution Method: End user
Price: $995
(See Vendor Profile Page V-9)

DATAGRAM CORP. D 4800
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Synchronous - 4,800 bps
Interface: RS-232C, CCITT V.24, V.27
Transmission Medium: Voice-Grade Lines
Diagnostics: No
Features: Autoequalizer, Fallback, Switchable Data Rates
Distribution Method: End user, Third Party
Price: $1,695
Date First Installed: March 1984

DATAGRAM CORP. D 9600
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Synchronous - 2,400 bps, 4,800 bps, 9,600 bps
Interface: RS-232C, CCITT V.24
Transmission Medium: Voice-Grade Lines
Features: Autoequalizer, Diagnostics, Fallback, Switchable Data Rates
Distribution Method: End user
Price: $2,250

DATAPOINT CORP. 9478/9479
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 1,200 bps
Interface: RS-232C
Transmission Medium: Voice-Grade Lines
Diagnostics: No
Distribution Method: End user
Price: $995
Date First Installed: January 1978
(See Vendor Profile Page V-9)

DATAPROBE, INC. MDR 165
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous - 300 bps
Interface: RS-232C, 20 MA Current Loop, 60 MA Current Loop
Transmission Medium: Voice-Grade Lines, Wide-Band Lines
Diagnostics: No
Features: Switchable Data Rates
Distribution Method: End user
Price: $450
Number Installed to Date: Under 100
Date First Installed: November 1983
(See Vendor Profile Page V-9)

DATAPRODUCTS CORP. DDU-1
Modem Class: Short-Haul
Transmission Technique: Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Synchronous - 2,400 bps, 4,800 bps, 9,600 bps, 14,400 bps; Asynchronous/ Synchronous - 7,200 bps
Interface: RS-232C, MIL 188C, MIL 188/114
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-in
Features: Autoequalizer, Diagnostics, Switchable Data Rates, Polling/Multipoint
Distribution Method: End user
Price: $700
Number Installed to Date: 100 - 500
Date First Installed: June 1980
(See Vendor Profile Page V-9)

DATAPRODUCTS NEW ENGLAND, INC. DDU-1
Modem Class: Line Driver
Transmission Technique: Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous/ Synchronous - 300 bps, 600 bps, 1,200 bps, 2,400 bps, 7,200 bps; Synchronous - 1,800 bps, 4,800 bps, 9,600 bps, 14,400 bps
Transmission Medium: Unconditioned Cable
Diagnostics: Yes, Built-in
Features: Diagnostics, Switchable Data Rates
Distribution Method: End user
Price: $790
Number Installed to Date: 500 - 1,000
Date First Installed: 1987
(See Vendor Profile Page V-9)

DATATEL, INC. DCP 9600
Modem Class: Short-Haul
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex, Full-Duplex, Simplex
Transmission Rate: Asynchronous - 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps, 14,400 bps, 19,200 bps
Interface: RS-232C
Bell-Compatible: 43401
Transmission Medium: Twisted-Pair
Diagnostics: Yes, Built-in
Features: Diagnostics
Distribution Method: End user
Price: $200
Number Installed to Date: 500 - 1,000
Date First Installed: 1980
(See Vendor Profile Page V-10)

DATATEL, INC. DCP 3019
Modem Class: Short-Haul
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex, Full-Duplex, Simplex
Transmission Rate: Asynchronous - 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps, 14,400 bps, 19,200 bps
Interface: Burroughs
Bell-Compatible: 43401
Transmission Medium: Twisted-Pair
Diagnostics: Yes, Built-in
Features: Diagnostics
Distribution Method: End user
Price: $280
Number Installed to Date: Under 100
Date First Installed: June 1980

DATATEL, INC. DCP 3030
Modem Class: Short-Haul
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex, Full-Duplex, Simplex
Transmission Rate: Asynchronous - 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps, 14,400 bps
Interface: RS-232C
Bell-Compatible: 43401
Transmission Medium: Twisted-Pair
Diagnostics: Yes; Built-in
Features: Diagnostics, Simulated Dial Control Sign
Distribution Method: End user
Price: $250
Number Installed to Date: Under 100
Date First Installed: January 1981

DATATEL, INC. DCP 3060
Modem Class: Short-Haul
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex, Full-Duplex, Simplex
Transmission Rate: Synchronous - 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps, 14,400 bps, 19,200 bps, Asynchronous/ Synchronous - 3,600 bps
Interface: RS-232C
Bell-Compatible: 43401
Transmission Medium: Twisted-Pair
Diagnostics: Yes, Built-in
Features: Diagnostics
Distribution Method: End user
Price: $420
Number Installed to Date: 500 - 1,000
Date First Installed: January 1981

DATATEL, INC. DCP 3065
Modem Class: Short-Haul
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex, Full-Duplex, Simplex
Transmission Rate: Synchronous - 1,200 bps, 2,400 bps, 4,800 bps, 9,600 bps, 14,400 bps
Interface: RS-232C
Bell-Compatible: 43401
Transmission Medium: Twisted-Pair
Diagnostics: Yes, Built-in
Features: Diagnostics, Switchable Data Rates, Auto Speed Detection
Distribution Method: End user
Price: $550
Number Installed to Date: Under 100
Date First Installed: October 1982

DATATEL, INC. DCP 3067
Modem Class: Short-Haul
Transmission Technique: Synchronous

Transmission Mode: Half-Duplex, Full-Duplex, Simplex
Transmission Rate: Synchronous - 2,400 bps, 4,800 bps, 9,600 bps, 14,400 bps, 56,000 bps
Interface: RS-232C
Bell-Compatible: 43401
Transmission Medium: Twisted-Pair
Diagnostics: Yes; Built-in
Features: Diagnostics
Distribution Method: End user
Price: $550
Number Installed to Date: Under 100
Date First Installed: January 1983

DATATEL, INC.
DCP 3069
Modem Class: Short-Haul
Transmission Technique: Synchronous
Transmission Rate: Synchronous - 65,000 bps, Asynchronous/ Synchronous - 48,000 bps, 72,000 bps
Interface: RS-232C, RS-422, V.35
Transmission Medium: Twisted-Pair
Diagnostics: Yes; Built-in
Features: Diagnostics, Automatic Speed Detection
Distribution Method: End user
Price: $950
Number Installed to Date: Under 100
Date First Installed: December 1983

DATATEL, INC.
DCP 3079
Modem Class: Short-Haul
Transmission Technique: Synchronous
Transmission Rate: Synchronous - 56,000 bps, Asynchronous/ Synchronous - 48,000 bps, 2M bps
Interface: RS-232C, RS-422, V.35
Transmission Medium: Twisted-Pair
Diagnostics: Yes; Built-in
Features: Diagnostics, Automatic Speed Detection
Distribution Method: End user
Price: $1,400
Date First Installed: January 1984

DATATEL, INC.
DCP 2166
Modem Class: Short-Haul
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex, Full-Duplex, Simplex
Transmission Rate: Synchronous - 1,800 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps, 14,400 bps, 19,800 bps, Asynchronous/ Synchronous - 3,600 bps
Interface: RS-232C
Bell-Compatible: 43401
Transmission Medium: Twisted-Pair
Diagnostics: Yes; Built-in
Features: Diagnostics
Distribution Method: End user
Price: $420
Number Installed to Date: 500 - 1,000
Date First Installed: January 1981

DATATEL, INC.
DCP 3165
Modem Class: Short-Haul
Transmission Technique: Synchronous
Transmission Mode: Full-Duplex, Simplex
Transmission Rate: Synchronous - 1,200 bps, 2,400 bps, 4,800 bps, 9,600 bps, 14,400 bps
Interface: RS-232C
Bell-Compatible: 43401
Transmission Medium: Twisted-Pair
Features: Diagnostics, Switchable Data Rates, Automatic Speed Detection
Distribution Method: End user
Price: $550
Number Installed to Date: Under 100
Date First Installed: October 1982

DATEC, INC.
33
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous - 300 bps
Interface: RS-232C
Bell-Compatible: 103, 113
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-in
Features: Autodial, Autoequalizer, Autoanswer, Alternate Voice/Data, Diagnostics, Switchable Data Rates
Distribution Method: Third-party
Price: $195 to $599
Number Installed to Date: 500 - 1,000
Date First Installed: 1981
(See Vendor Profile Page V-10)

DATEC, INC.
212
Modem Class: Long-Haul
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchrdnous/ Synchronous - 300 bps, 1,200 bps
Interface: RS-232C
Bell-Compatible: 103, 113, 212
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-in
Features: Autodial, Autoequalizer, Autoanswer, Alternate Voice/Data, Diagnostics, Switchable Data Rates
Distribution Method: Third-party
Price: $195 to $599
Number Installed to Date: 5,000 - 10,000
Date First Installed: 1980

DATEC, INC.
PAL 103
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous - 300 bps
Interface: RS-232C
Bell-Compatible: 103, 113
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-in
Features: Autodial, Autoequalizer, Autoanswer, Alternate Voice/Data, Diagnostics, Switchable Data Rates
Distribution Method: Third-party
Price: $195 to $599
Date First Installed: 1984

DATEC, INC.
PAL 212
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous - 300 bps, 1,800 bps
Interface: RS-232C
Bell-Compatible: 103, 113, 212
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-in
Features: Autodial, Autoequalizer, Autoanswer, Alternate Voice/Data, Diagnostics, Switchable Data Rates
Distribution Method: Third-party
Price: $195 to $599
Date First Installed: 1983

DATEC, INC.
PAL PLUS
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 300 bps, 1,800 bps
Interface: RS-232C
Bell-Compatible: 103, 113, 212
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-in
Features: Autodial, Autoequalizer, Autoanswer, Alternate Voice/Data, Diagnostics, Multiport, Switchable Data Rates
Distribution Method: Third-party
Price: $195 to $599
Date First Installed: 1983

DEI-TELEPRODUCTS, INC.
ADT-3
Modem Class: Line Driver
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps, 14,400 bps, 19,800 bps
Interface: RS-232C
Transmission Medium: Voice-Grade Lines, Untod Metallic Pairs
Diagnostics: No
Features: Diagnostics, Switchable Data Rates, Extended Ring Option
Distribution Method: End user
Price: $225
Number Installed to Date: 10,000
Date First Installed: July 1978
(See Vendor Profile Page V-10)

DEI-TELEPRODUCTS, INC.
2000
Modem Class: Short-Haul
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Synchronous - 56,000 bps, Asynchronous/ Synchronous - 64K bps
Interface: CCITT V.35
Transmission Medium: Voice-Grade Lines, Untod Metallic Pairs
Diagnostics: No
Features: Diagnostics, Switchable Data Rates
Distribution Method: End user
Price: $689
Number Installed to Date: 200
Date First Installed: August 1983

DEI-TELEPRODUCTS, INC.
ADT-3
Modem Class: Short-Haul
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Synchronous - 2,400 bps, 4,800 bps, 9,600 bps, 14,400 bps
Interface: RS-232C
Transmission Medium: Voice-Grade Lines, Untod Metallic Pairs
Diagnostics: No
Features: Diagnostics, Switchable Data Rates, Extended Ring Option
Distribution Method: End user
Price: $445
Number Installed to Date: 6,000
Date First Installed: 1979

DEI-TELEPRODUCTS, INC.
SLD-1
Modem Class: Short-Haul
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps, 14,400 bps, 19,200 bps
Interface: RS-232C
Transmission Medium: Voice-Grade Lines, Untod Metallic Pairs
Diagnostics: No
Features: Diagnostics
Distribution Method: End user, Third-party
Price: $175
Number Installed to Date: 500 - 1,000
Date First Installed: January 1981

DEVELCON ELECTRONICS, INC.
710 ACOUSTIC COUPLER
Modem Class: Coupler
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps
Interface: RS-232C, 20 MA Current Loop
Bell-Compatible: 103
Transmission Medium: Voice-Grade Lines
Diagnostics: No
Features: Alternate Voice/Data
Distribution Method: End user, OEM, Third-party

Modems

Price: $195
Number Installed to Date: 5,000 - 10,000
Date First Installed: September 1978
(See Vendor Profile Page V-10)

DEVELCON ELECTRONICS, INC.
2CH12 MODEMPLEXER
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps, 1,200 bps
Interface: RS-232C
Bell-Compatible: 103, 113, 212
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-in
Features: Autodial, Autoequalizer, Autoanswer, Diagnostics, Multiport, Switchable Data Rates, Stored Directory
Distribution Method: End user, OEM, Third-party
Price: $995
Number Installed to Date: Under 100
Date First Installed: August 1983

DEVELCON ELECTRONICS, INC.
6212 SMART MODEM
Modem Class: Long-Haul
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous/ Synchronous - 1,200 bps
Interface: RS-232C
Bell-Compatible: 212
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-in
Features: Autodial, Autoequalizer, Autoanswer, Diagnostics, Switchable Data Rates, Stored Directory
Distribution Method: End user, OEM, Third-party
Price: $495
Number Installed to Date: Under 100
Date First Installed: January 1984

DEVELCON ELECTRONICS, INC.
7212 MODEM
Modem Class: Long-Haul
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps; Asynchronous/ Synchronous - 1,200 bps
Interface: RS-232C
Bell-Compatible: 103, 113, 212
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-in
Features: Autoequalizer, Autoanswer, Alternate Voice/Data, Diagnostics, Switchable Data Rates
Distribution Method: End user, Third-party
Price: $575
Number Installed to Date: 100 - 500
Date First Installed: July 1982

DEVELCON ELECTRONICS, INC.
6212 SMART MODEM
Modem Class: Long-Haul
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps; Asynchronous/ Synchronous - 1,200 bps
Interface: RS-232C
Bell-Compatible: 103, 113, 212
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes, Built-in
Features: Autodial, Autoequalizer, Autoanswer, Diagnostics, Switchable Data Rates, Stored Directory
Distribution Method: End user, OEM, Third-party
Price: $650
Number Installed to Date: 500 - 1,000
Date First Installed: November 1982

DEVELCON ELECTRONICS, INC.
9123 MODEM
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps
Interface: RS-232C
Bell-Compatible: 103
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-in
Features: Autoanswer, Alternate Voice/Data, Diagnostics
Distribution Method: End user, OEM, Third-party
Price: $195
Number Installed to Date: 100 - 500
Date First Installed: 1982

DEVELCON ELECTRONICS, INC.
9202 MODEM
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous - 1,200 bps
Interface: RS-232C
Bell-Compatible: 202
Transmission Medium: Voice-Grade Line
Diagnostics: Yes; Built-in
Features: Autodial, Autoanswer, Reverse Channel, Diagnostics
Distribution Method: End user, OEM, Third-party
Price: $671
Number Installed to Date: 1,000 - 5,000
Date First Installed: September 1978

DIGITAL EQUIPMENT CORP.
DF01-A ACOUSTIC COUPLER
Modem Class: Coupler
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous - 300 bps
Interface: RS-232C, 20 MA Current Loop
Transmission Medium: Voice-Grade Lines
Price: $345
Date First Installed: 1978
(See Vendor Profile Page V-10)

DIGITAL EQUIPMENT CORP.
DF03-AA/AC
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps
Interface: RS-232C, CCITT V.24, CCITT V.28
Bell-Compatible: 103
Transmission Medium: Voice-Grade Lines
Features: Autoanswer, Alternate Voice/Data, Diagnostics
Price: $450 to $650
Date First Installed: 1980

DIGITAL EQUIPMENT CORP.
DF03-AA/AC
Modem Class: Long-Haul
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps; Asynchronous/ Synchronous - 1,200 bps
Interface: RS-232C, CCITT V.24, CCITT V.28
Bell-Compatible: 103, 212
Transmission Medium: Voice-Grade Lines
Features: Autodial, Autoanswer, Alternate Voice/Data, Diagnostics, Switchable Data Rates
Price: $695 to $1,095
Date First Installed: 1980

DIGITAL EQUIPMENT CORP.
DF03-RA/RC
Modem Class: Long-Haul
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps; Asynchronous/ Synchronous - 1,200 bps
Interface: RS-232C, CCITT V.24, CCITT V.28, RS432-A
Bell-Compatible: 103, 212
Transmission Medium: Voice-Grade Line
Diagnostics: Yes, Built-in
Features: Autodial, Autoanswer, Diagnostics
Price: $750 to $950
Date First Installed: 1983

DATACOM CORP.
EC9-19
Modem Class: Short-Haul
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 9,600 bps
Interface: RS-232C
Transmission Medium: Solid Copper Wire Pair
Diagnostics: No
Features: High Noise Immunity
Distribution Method: End user
Price: $99 to $104
Number Installed to Date: 3,000
Date First Installed: 1977
(See Vendor Profile Page V-11)

DYNATECH DATA SYSTEMS
ME-1
Modem Class: Modem Eliminator
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous/ Synchronous - 110 bps, 300 bps, 500 bps, 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps, 14,400 bps
Interface: RS-232C, CCITT V.24
Transmission Medium: Digital Links
Diagnostics: No
Features: Switchable Data Rates
Distribution Method: End user
Price: $440
Number Installed to Date: 600 - 1,000
(See Vendor Profile Page V-11)

DYNATECH DATA SYSTEMS
LDM 12
Modem Class: Short-Haul
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps, 14,400 bps
Interface: RS-232C, CCITT V.24
Transmission Medium: Metallic Twisted Pairs
Diagnostics: No
Features: Switchable Data Rates
Distribution Method: End user, Third-party
Price: $275
Number Installed to Date: 300 - 1,000
Date First Installed: 1980

DYNATECH DATA SYSTEMS
LDM 22
Modem Class: Short-Haul
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous/ Synchronous - 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps, 14,400 bps
Interface: RS-232C
Transmission Medium: Metallic Twisted Pair
Features: Switchable Data Rates
Distribution Method: End user, Third-party
Price: $440
Number Installed to Date: 1,000 - 5,000
Date First Installed: 1982

DYNATECH DATA SYSTEMS
LDM 32
Modem Class: Short-Haul
Transmission Technique: Synchronous
Transmission Mode: Full-Duplex

Transmission Rate: Synchronous - 2,400 bps, 4,800 bps, 9,600 bps
Interface: RS-232C, CCITT V.24
Transmission Medium: Two Unload Twisted-Pair
Diagnostics: No
Features: Switchable Data Rates, Remote Digital Loopback
Distribution Method: End user, Third-party
Price: $590
Number Installed to Date: Under 100
Date First Installed: 1982

EMTROL SYSTEMS, INC.
LYNX 103-6AA
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous - 300 bps
Bell-Compatible: 103
Transmission Medium: Voice-Grade Lines
Diagnostics: No
Features: Autodial, Autoanswer
Distribution Method: Third-party
Price: $299
(See Vendor Profile Page V-11)

EMTROL SYSTEMS, INC.
LYNX 103-6AA (APPLE LYNX)
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous - 300 bps
Bell-Compatible: 103
Transmission Medium: Voice-Grade Lines
Diagnostics: No
Features: Autodial, Autoanswer
Distribution Method: Third-party
Price: $299

ENVAX CORP.
ACOUSTIC COUPLER N79
Modem Class: Coupler
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous - 300 bps
Interface: RS-232C
Bell-Compatible: 103
Transmission Medium: Voice-Grade Lines
Distribution Method: Third-party
Price: $195 to $225
Number Installed to Date: 10,000 - 50,000
Date First Installed: 1979
(See Vendor Profile Page V-11)

ENVAX CORP.
103-1
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous - 300 bps
Interface: RS-232C
Bell-Compatible: 103
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Add-on
Features: Autoanswer, Alternate Voice/Data, Diagnostics
Distribution Method: OEM
Price: $175 to $485
Date First Installed: 1979

ENVAX CORP.
103-2
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous - 300 bps
Interface: RS-232C
Bell-Compatible: 103
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Add-on
Features: Autoanswer, Alternate Voice/Data, Diagnostics
Distribution Method: OEM
Price: $175 to $485
Date First Installed: 1979

ENVAX CORP.
103-3
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous - 300 bps
Interface: RS-232C
Bell-Compatible: 103
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Add-on
Features: Autoanswer, Alternate Voice/Data, Diagnostics
Distribution Method: OEM
Price: $175 to $485
Date First Installed: 1979

ENVAX CORP.
103-5
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous - 300 bps
Interface: RS-232C
Bell-Compatible: 103
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes, Add-on
Features: Autoanswer, Alternate Voice/Data, Diagnostics
Distribution Method: OEM
Price: $175 to $485
Date First Installed: 1979

ERICSSON PROGMATIC, INC.
ZAT 1200
Modem Class: Long-Haul
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps; Asynchronous/Synchronous - 600 bps, 1,200 bps
Interface: CCITT V.22
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-In
Features: Autoequalizer, Autoanswer, Alternate Voice/Data, Diagnostics, Fallback, Switchable Data Rates
Distribution Method: End user
Price: $650
Number Installed to Date: Under 100
Date First Installed: January 1980
(See Vendor Profile Page V-11)

ERICSSON PROGMATIC, INC.
ZAT 2400
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Synchronous - 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps
Interface: CCITT V.22
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes, Built-In
Features: Autoequalizer, Autoanswer, Alternate Voice/Data, Reverse Channel, Fallback, Switchable Data Rates, Point to Point and Multidropping
Distribution Method: End user
Price: $925
Number Installed to Date: Under 100
Date First Installed: January 1980

ERICSSON PROGMATIC, INC.
ZAT 4800
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Synchronous - 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps
Interface: CCITT V.27
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-In
Features: Autoequalizer, Autoanswer, Alternate Voice/Data, Reverse Channel, Diagnostics, Fallback, Switchable Data Rates, Dial Backup
Distribution Method: End user
Price: $1,895
Number Installed to Date: Under 100
Date First Installed: January 1980

ERICSSON PROGMATIC, INC.
ZAT 9600
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Synchronous - 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps
Interface: CCITT V.29
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes, Built-In
Features: Autoequalizer, Autoanswer, Reverse Channel, Diagnostics, Fallback, Switchable Data Rates, Multiplexer Option
Distribution Method: End user
Price: $2,195
Number Installed to Date: Under 100
Date First Installed: January 1980

FERROMICS INTERNATIONAL, INC.
FM 601
Modem Class: Fiber-Optic
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 4,800 bps, Synchronous - 14,400 bps
Interface: RS-232C
Transmission Medium: Fiber Optics
Diagnostics: Yes; Built-In
Features: Autoequalizer, Autoanswer, Reverse Channel, Diagnostics, Clock Calendar, Switchable Data Rates
Distribution Method: End user
(See Vendor Profile Page V-12)

FERROMICS INTERNATIONAL, INC.
FM 602
Modem Class: Fiber-Optic
Transmission Technique: Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous/Synchronous - 256K bps
Interface: RS-232C
Transmission Medium: Fiber Optics
Diagnostics: Yes, Built-In
Features: Autoequalizer, Autoanswer, Reverse Channel, Diagnostics, Clock Calendar, Switchable Data Rates
Distribution Method: End user

FRIEDMAN ASSOCIATES
MIC 201
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Synchronous - 2,400 bps
Interface: RS-232C
Bell-Compatible: 201
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes, Built-In
Distribution Method: End user
Price: $620
Date First Installed: January 1981
(See Vendor Profile Page V-12)

FRIEDMAN ASSOCIATES
MIC 201 CR
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Synchronous - 2,400 bps

Modems

Interface: RS-232C
Bell-Compatible: 201
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-In
Features: Autodial
Distribution Method: End user
Price: $645
Date First Installed: June 1981

FRIEDMAN ASSOCIATES
NEC 302T
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex, Full-Duplex, Simplex
Transmission Rate: Synchronous - 1,800 bps
Interface: RS-232C
Bell-Compatible: 202
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-In
Features: Reverse Channel, Diagnostics
Distribution Method: End user
Price: $305
Date First Installed: June 1981

FRIEDMAN ASSOCIATES
NEC 212
Modem Class: Long-Haul
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Synchronous - 300 bps, 1,200 bps
Interface: RS-232C
Bell-Compatible: 212
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-In
Features: Autodial
Distribution Method: End user
Price: $500
Date First Installed: January 1981

FRIEDMAN ASSOCIATES
NEC 212 AR
Modem Class: Long-Haul
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous - 300 bps; Synchronous - 1,200 bps
Interface: RS-232C
Bell-Compatible: 212
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-In
Features: Autodial, Autoanswer
Distribution Method: End user
Price: $500
Date First Installed: June 1982

FRIEDMAN ASSOCIATES
NEC 212 SR
Modem Class: Long-Haul
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 300 bps; Synchronous - 1,200 bps
Interface: RS-232C
Bell-Compatible: 212
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-In
Features: Autodial
Distribution Method: End user
Price: $675
Date First Installed: January 1982

FRIEDMAN ASSOCIATES
NEC DSP 4800-U
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Synchronous - 2,400 bps, 4,800 bps
Interface: RS-232C, CCITT V.24
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-In
Features: Autoequalizer, Diagnostics, Multiport, Fallback
Distribution Method: End user
Price: $950
Date First Installed: January 1982

FRIEDMAN ASSOCIATES
NEC DSP 9600-U
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 4,800 bps, 7,200 bps, 9,600 bps
Interface: RS-232C
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-In
Features: Autodial, Autoanswer
Distribution Method: End user
Price: $1,500
Date First Installed: January 1982

FRIEDMAN ASSOCIATES
NEC VOICE DIGITIZER
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Synchronous - 2,400 bps, 4,800 bps
Interface: RS-232C
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-In
Price: $7,000
Date First Installed: January 1984

FUJITSU AMERICA, INC.
F-1918L
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Synchronous - 4,800 bps
Interface: RS-232C
Transmission Medium: Voice-Grade Lines, Unconditional Voice-Grade
Diagnostics: Yes; Built-In
Features: Autoequalizer, Autoanswer, Diagnostics, Multiport, Fallback, Switchable Data Rates, Software Strapping
Distribution Method: OEM
Price: $1,795
Number Installed to Date: 100 - 500
Date First Installed: November 1983
(See Vendor Profile Page V-12)

FUJITSU AMERICA, INC.
F-1921L
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Synchronous 9,600 bps
Interface: RS-232C
Transmission Medium: Unconditional Voice-Grade
Diagnostics: Yes; Built-In
Features: Autoequalizer, Autoanswer, Diagnostics, Multiport, Fallback, Switchable Data Rates, Software Strapping
Distribution Method: OEM
Price: $2,450
Number Installed to Date: 100 - 500
Date First Installed: November 1983

FUJITSU AMERICA, INC.
F-1926L
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Synchronous - 19,200 bps
Interface: RS-232C
Transmission Medium: Unconditional Voice-Grade
Diagnostics: Yes; Built-In
Features: Autoequalizer, Autoanswer, Diagnostics, Multiport, Fallback, Switchable Data Rates, Software Strapping
Distribution Method: OEM
Price: $6,000
Number Installed to Date: 100 - 500
Date First Installed: November 1983

FUJITSU AMERICA, INC.
M-1916CM06
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Synchronous - 4,800 bps
Interface: TTL
Transmission Medium: Unconditional Voice-Grade
Diagnostics: Yes, Add-on
Features: Autoequalizer, Autoanswer, Diagnostics, Multiport, Fallback, Switchable Data Rates, Software Strapping
Distribution Method: OEM
Price: $365
Number Installed to Date: 5,000
Date First Installed: November 1983

FUJITSU AMERICA, INC.
M-1921CM06
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Synchronous - 9,600 bps
Interface: TTL
Transmission Medium: Unconditional Voice-Grade
Diagnostics: Yes; Add-on
Features: Autoequalizer, Autoanswer, Diagnostics, Multiport, Fallback, Switchable Data Rates, Software Strapping
Distribution Method: OEM
Price: $595
Number Installed to Date: 100 - 500
Date First Installed: November 1983

FUJITSU AMERICA, INC.
M-1926CM02
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Synchronous - 19,200 bps
Interface: TTL
Transmission Medium: Unconditional Voice-Grade
Diagnostics: Yes; Add-on
Features: Autoequalizer, Autoanswer, Diagnostics, Multiport, Fallback, Switchable Data Rates, Software Strapping
Distribution Method: OEM
Price: $1,200
Number Installed to Date: 100 - 500
Date First Installed: November 1983

FUJITSU AMERICA, INC.
M-1926CM03
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Synchronous - 19,200 bps
Interface: TTL
Transmission Medium: Unconditional Voice-Grade
Diagnostics: Yes; Add-on
Features: Autoequalizer, Autoanswer, Diagnostics, Multiport, Fallback, Switchable Data Rates, Software Strapping
Distribution Method: OEM
Price: $1,500
Number Installed to Date: 100 - 500
Date First Installed: November 1983

GANDALF DATA, INC.
FA1
Modem Class: Fiber-Optic
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 100K bps
Interface: RS-232C, CCITT V.24, CCITT V.28
Transmission Medium: Fiber Optics
Diagnostics: No
Features: Switchable Data Rates
Distribution Method: End user
Price: $500
(See Vendor Profile Page V-12)

GANDALF DATA, INC.
FS1
Modem Class: Fiber-Optic
Transmission Technique: Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Synchronous - 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps, 14,400 bps, 19,200 bps, 56,000 bps; Asynchronous/Synchronous - Up to 252,000 bps
Interface: RS-232C, CCITT V.24, V.28
Transmission Medium: Fiber Optics

Diagnostics: No
Features: Switchable Data Rates
Distribution Method: End user
Price: $600
Number Installed to Date: Under 100

GANDALF DATA, INC.
LDS 109C
Modem Class: Line Driver
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous - 14,400 bps
Interface: RS-232C, CCITT V.24, CCITT V.28
Transmission Medium: Narrow-Band Lines
Diagnostics: No
Distribution Method: End user
Price: $225
Number Installed to Date: 5,000 - 10,000
Date First Installed: 1974

GANDALF DATA, INC.
LDS 101
Modem Class: Line Driver
Transmission Technique: Asynchrondus
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous - 14,400 bps
Interface: RS-232C, CCITT V.24, CCITT V.28
Transmission Medium: Narrow-Band Lines
Diagnostics: No
Distribution Method: End user
Price: $400
Number Installed to Date: 5,000 - 10,000
Date First Installed: 1974

GANDALF DATA, INC.
SAM 901
Modem Class: Long-Haul
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous/ Synchronous - 1,200 bps, 2,400 bps
Interface: RS-232C
Bell-Compatible: 201
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-In
Date First Installed: 1982

GANDALF DATA, INC.
SAM 212A
Modem Class: Long-Haul
Transmission Technique: Asynchronous, Synhronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 300 bps; Asynchronous/ Synchronous - 1,200 bps
Interface: RS-232C
Bell-Compatible: 103, 113, 212
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-In
Features: Autodial, Autoequalizer, Autoanswer, Alternate Voice/Data, Diagnostics
Distribution Method: End user
Price: $619

GANDALF DATA, INC.
SM 9600
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Synchronous - 9,600 bps
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-In
Features: Multiport, Manual Dial Backup
Distribution Method: End user
Price: $2,600
Date First Installed: 1981

GANDALF DATA, INC.
ME 2D
Modem Class: Modem Eliminator
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous/ Synchronous - 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps, 14,400 bps, 19,200 bps, 56,000 bps; Synchronous - 310,800 bps
Interface: RS-232C, CCITT V.24, CCITT V.28
Transmission Medium: Narrow-Band Lines
Distribution Method: End user
Price: $400
Date First Installed: 1979

GANDALF DATA, INC.
ME 902
Modem Class: Modem Eliminator
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Synchronous - 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps, 14,400 bps, 19,200 bps, Asynchronous/Synchronous - 38.4K bps
Interface: RS-232C, CCITT V.24, CCITT V.28
Transmission Medium: Narrow-Band Lines
Diagnostics: No
Distribution Method: End user
Price: $450
Date First Installed: 1978

GANDALF DATA, INC.
RADIO MODEM
Modem Class: Radio Frequency (RF)
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous/ Synchronous - 300 bps, 1,200 bps, 2,400 bps
Interface: RS-232C, CCITT V.24, CCITT V.28
Transmission Medium: Radio Links
Diagnostics: No
Price: $1,595
Date First Installed: 1983

GANDALF DATA, INC.
LDS 122; RM 3120
Modem Class: Short-Haul
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous - 9,600 bps
Interface: RS-232C, CCITT V.24, CCITT V.28
Transmission Medium: Narrow-Band Lines
Diagnostics: No
Features: Digital Loopback
Distribution Method: End user
Price: $300
Number Installed to Date: 10,000 - 50,000
Date First Installed: 1973

GANDALF DATA, INC.
LDS 131
Modem Class: Short-Haul
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynshronous - 9,600 bps
Interface: RS-232C, CCITT V.24, CCITT V.28
Transmission Medium: Narrow-Band Lines
Diagnostics: No
Distribution Method: End user

GANDALF DATA, INC.
LDS 140; RM 3140
Modem Class: Short-Haul
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous - 4,800 bps, 9,600 bps
Interface: RS-232C, CCITT.V.24, CCITT V.28
Transmission Medium: Narrow-Band Lines
Distribution Method: End user
Price: $450
Number Installed to Date: 500 - 1,000
Date First Installed: 1977

GANDALF DATA, INC.
LDS 300
Modem Class: Short-Haul
Transmission Technique: Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Synchronous - 56,000 bps, Asynchronous/ Synchronous - 50K bps
Interface: RS-232C, RS-422, CCITT V.24, CCITT V.28, MIL 188C, V.35
Transmission Medium: Narrow-Band Lines
Price: $786 to $886
Date First Installed: 1982

GANDALF DATA, INC.
LDS 308; RM 3080
Modem Class: Short-Haul
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Synchronous - 14,400 bps
Interface: RS-232C, CCITT V.24, CCITT V.28
Transmission Medium: Narrow-Band Lines
Diagnostics: No
Features: Multiport, Analog Loopback
Distribution Method: End user
Price: $450
Number Installed to Date: 5,000 - 10,000
Date First Installed: 1974

GANDALF DATA, INC.
LDS 310; RM 3110
Modem Class: Short-Haul
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous/ Synchronous - 2,400 bps, 4,800 bps, 9,600 bps, 14,400 bps
Interface: RS-232C, CCITT V.24, CCITT V.28
Transmission Medium: Narrow-Band Lines
Diagnostics: No
Features: Switchable Data Rate
Distribution Method: End user
Price: $735
Number Installed to Date: 500 - 1,000
Date First Installed: 1978

GANDALF DATA, INC.
LDS 320; RM 3020
Modem Class: Short-Haul
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Synchronous - 2,400 bps, 4,800 bps, 9,600 bps
Interface: RS-232C, CCITT V.24, CCITT V.28
Transmission Medium: Narrow-Band Lines
Diagnostics: No
Distribution Method: End user
Price: $450
Number Installed to Date: 500 - 1,000
Date First Installed: 1979

GANDALF DATA, INC.
SM LDS 340
Modem Class: Short-Haul
Transmission Technique: Synchronous
Transmission Mode: Full-Duplex
Interface: RS-232C, CCITT V.24
Transmission Medium: Twisted-pair
Features: Autoequalizer
Distribution Method: End user
Price: $295
Number Installed to Date: Under 500
Date First Installed: January 1984

GANDALF DATA, INC.
LINE MIXER
Modem Class: Short-Haul

Modems

Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous/ Synchronous - 9,600 bps
Interface: RS-232C
Transmission Medium: Voice-Grade Lines, Narrow-Band Lines
Diagnostics: No
Distribution Method: End user
Price: $295 to $305
Date First Installed: 1982

GANDALF DATA, INC.
MM4 LDM 122
Modem Class: Short-Haul
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 9,600 bps
Interface: RS-232C, CCITT V.24, CCITT V.28
Transmission Medium: Narrow-Band Lines
Diagnostics: No
Features: Autoequalizer
Distribution Method: End user

GANDALF DATA, INC.
LDM 404; RM 3404
Modem Class: Medium Distance
Transmission Technique: Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Synchronous - 2,400 bps, 4,800 bps
Interface: RS-232C, CCITT V.24, CCITT V.28
Transmission Medium: Voice-Grade Lines
Features: Multiport, Split Channel
Distribution Method: End user
Price: $675 to $975
Number Installed to Date: 500 - 1,000
Date First Installed: 1977

GANDALF DATA, INC.
LDM 409
Modem Class: Medium Distance
Transmission Technique: Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Synchronous - 9,600 bps
Interface: RS-232C, CCITT V.24
Transmission Medium: Voice-Grade Lines, Narrow-Band Lines
Diagnostics: Yes; Built-In
Features: Autoequalizer, Diagnostics
Distribution Method: End user
Date First Installed: 1983

GANDALF DATA, INC.
LDM 414; RM 3414
Modem Class: Medium Distance
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 2,400 bps, 4,800 bps
Interface: RS-232C, CCITT V.24, CCITT V.28
Transmission Medium: Voice-Grade Lines
Features: Multiport
Price: $975 to $1,050
Number Installed to Date: 500 - 1,000

GANDALF DATA, INC.
LDM 444; RM 3444
Modem Class: Medium Distance
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Synchronous - 4,800 bps
Interface: RS-232C, CCITT V.24, CCITT V.28
Transmission Medium: Narrow-Band Lines
Diagnostics: Yes; Built-in
Features: 6.5 msec Fast Pull
Distribution Method: End user
Price: $1,350
Date First Installed: 1982

GANDALF DATA, INC.
LDM 464; RM 3464
Modem Class: Medium Distance
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous - 4,800 bps
Interface: RS-232C, CCITT V.24, CCITT V.28
Transmission Medium: Narrow-Band Lines
Diagnostics: Yes; Built-in
Distribution Method: End user
Price: $1,495
Date First Installed: 1982

GENERAL DATACOMM INDUSTRIES, INC.
GDC 906A/56K
Modem Class: Digital (DSU)
Transmission Technique: Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Synchronous - 56,000 bps
Interface: CCITT V.35
Transmission Medium: Digital Links
Diagnostics: Yes, Add-on
Features: Autoequalizer, Diagnostics
Distribution Method: End user, Third-party
Price: $995
Number Installed to Date: 200
Date First Installed: 1983
(See Vendor Profile Page V-12)

GENERAL DATACOMM INDUSTRIES, INC.
GDC DSU-906A
Modem Class: Digital (DSU)
Transmission Technique: Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Synchronous - 2,400 bps, 4,800 bps, 9,600.bps
Interface: RS-232C
Transmission Medium: Digital Links
Diagnostics: Yes, Built-in
Features: Autoequalizer, Diagnostics, Switchable Data Rates
Distribution Method: End user, Third-party
Price: $695
Number Installed to Date: 200
Date First Installed: 1983

GENERAL DATACOMM INDUSTRIES, INC.
GSU-906B
Modem Class: Digital (DSU)
Transmission Technique: Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Synchronous - 2,400 bps, 4,800 bps, 9,600 bps
Interface: RS-232C
Transmission Medium: Digital Links
Diagnostics: Yes, Built-in
Features: Diagnostics, Switchable Data Rates
Distribution Method: End user, Third-party

GENERAL DATACOMM INDUSTRIES, INC.
DC 103J
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps
Interface: RS-232C, CCITT V.24, CCITT V.28
Bell-Compatible: 103
Transmission Medium: Voice-Grade Lines
Diagnostics: No
Features: Autoanswer, Alternate Voice/Data, Diagnostics
Distribution Method: End user
Date First Installed: 1981

GENERAL DATACOMM INDUSTRIES, INC.
DC 108-300
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps
Interface: RS-232C, CCITT V.24, CCITT V.28
Bell-Compatible: 108
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Add-on
Features: Diagnostics
Distribution Method: End user
Date First Installed: 1981

GENERAL DATACOMM INDUSTRIES, INC.
DC 201-7
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Synchronous - 1,200 bps, 2,400 bps
Interface: RS-232C, CCITT V.24, CCITT V.28, CCITT V.28
Bell-Compatible: 201
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes, Add-on
Features: Diagnostics, Fallback, Switchable Data Rates, Remote Diagnostics
Distribution Method: End user
Price: $675
Number Installed to Date: 5,000
Date First Installed: 1981

GENERAL DATACOMM INDUSTRIES, INC.
DC 201C
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Synchronous - 2,400 bps
Interface: RS-232C, CCITT V.24, CCITT V.26, CCITT V.28
Bell-Compatible: 201
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Add-on
Features: Autodial, Autoanswer, Alternate Voice/Data, Diagnostics
Distribution Method: End user
Date First Installed: 1980

GENERAL DATACOMM INDUSTRIES, INC.
DC 201C-K
Modem Class: Long-Haul
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Half-Duplex
Transmission Rate: Asynchronous - 300 bps, 600 bps, 1,800 bps; Asynchronous/Synchronous - 1,200 bps, 2,400 bps
Interface: RS-232C, CCITT V.24, CCITT V.26, CCITT V.28
Bell-Compatible: 201
Transmission Medium: Voice-Grade Lines
Diagnostics: No
Features: Autodial, Autoanswer, Alternate Voice/Data, Diagnostics, Fallback, Switchable Data Rates, Serial Autodial
Distribution Method: End user
Price: $750
Date First Installed: 1982

GENERAL DATACOMM INDUSTRIES, INC.
DC 2026/T
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous - 1,200 bps, 1,800 bps
Interface: RS-232C
Bell-Compatible: 202
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes, Built-in
Features: Reverse Channel, Diagnostics, Switchable Data Rates
Distribution Method: End user, Third-party
Price: $405
Number Installed to Date: 2,500
Date First Installed: 1980

GENERAL DATACOMM INDUSTRIES, INC.
DC 2069/A
Modem Class: Long-Haul
Transmission Technique: Synchronous

Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Synchronous - 4,800 bps
Interface: RS-232C, CCITT V.24, CCITT V.28
Bell-Compatible: 208
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Add-on
Features: Autodial, Autoequalizer, Autoanswer, Alternate Voice/Data, Diagnostics
Distribution Method: End user
Price: $1,595
Number Installed to Date: 4,000
Date First Installed: 1981

GENERAL DATACOMM INDUSTRIES, INC.
DC 212A
Modem Class: Long-Haul
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps; Asynchronous/ Synchronous - 1,200 bps
Interface: RS-232C, CCITT V.24, CCITT V.28
Bell-Compatible: 103, 212
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Add-on
Features: Autodial, Autoequalizer, Autoanswer, Alternate Voice/Data, Diagnostics, Switchable Data Rates
Distribution Method: End user
Price: $640
Number Installed to Date: 600
Date First Installed: 1983

GENERAL DATACOMM INDUSTRIES, INC.
DC 9400A/M
Modem Class: Long-Haul
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps, 600 bps, 1,800 bps, 1,800 bps; Asynchronous/ Synchronous - 2,400 bps
Interface: RS-232C, CCITT V.24, CCITT V.26, CCITT V.28
Bell-Compatible: 201
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Add-on
Features: Diagnostics, Fallback, Switchable Data Rates, Point to Point
Distribution Method: End user, Third-party
Price: $795
Number Installed to Date: 3,000
Date First Installed: 1981

GENERAL DATACOMM INDUSTRIES, INC.
DC 9600
Modem Class: Long-Haul
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous - 1,200 bps, 1,800 bps, 2,400 bps; Asynchronous/Synchronous - 4,800 bps
Interface: RS-232C, CCITT V.24, CCITT V.28
Bell-Compatible: 208
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Add-on
Features: Autoequalizer, Diagnostics, Remote Diagnostics
Distribution Method: End user, Third-party
Price: $1,475
Number Installed to Date: 2,500
Date First Installed: 1982

GENERAL DATACOMM INDUSTRIES, INC.
DC 4800B
Modem Class: Long-Haul
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Half-Duplex
Transmission Rate: Asynchronous - 1,800 bps, 1,800 bps, 2,400 bps; Asynchronous/Synchronous - 4,800 bps
Interface: RS-232C, CCITT V.24, CCITT V.28
Bell-Compatible: 208
Transmission Medium: Voice-Grade Lines
Diagnostics: No
Features: Autodial, Autoequalizer, Autoanswer, Alternate Voice/Data, Diagnostics, Serial Autodial
Distribution Method: End user, Third-party
Price: $1,445
Number Installed to Date: 500
Date First Installed: 1983

GENERAL DATACOMM INDUSTRIES, INC.
DC 4827
Modem Class: Long-Haul
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous - 600 bps, 1,800 bps, 1,800 bps; Asynchronous/Synchronous - 2,400 bps, 4,800 bps
Interface: RS-232C, CCITT V.24, CCITT V.27, CCITT V.28
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Add-on
Features: Autoequalizer, Diagnostics, Fallback, Switchable Data Rates, Remote Diagnostics
Date First Installed: 1982

GENERAL DATACOMM INDUSTRIES, INC.
DC 9600
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Synchronous - 4,800 bps, 9,600 bps; Asynchronous/Synchronous - 7,200 bps
Interface: RS-232C, CCITT V.24, CCITT V.29
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Add-on
Features: Autoequalizer, Diagnostics, Fallback, Switchable Data Rates
Date First Installed: 1980

GENERAL DATACOMM INDUSTRIES, INC.
DC 9600 DP
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Synchronous - 4,200 bps, 9,600 bps; Asynchronous/Synchronous - 7,200 bps
Interface: RS-232C, CCITT V.24, CCITT V.28, CCITT V.29
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Add-on
Features: Autoequalizer, Diagnostics, Fallback, Switchable Data Rates, Point to Point
Distribution Method: End user, Third-party
Price: $2,750
Number Installed to Date: 500
Date First Installed: 1983

GENERAL DATACOMM INDUSTRIES, INC.
DC 9600 QP
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Synchronous - 4,200 bps, 9,600 bps; Asynchronous/Synchronous - 7,200 bps
Interface: CCITT V.29
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-In
Features: Autoequalizer, Diagnostics, Fallback
Distribution Method: End user, Third-party
Price: $2,595
Number Installed to Date: 1,800
Date First Installed: 1982

GENERAL DATACOMM INDUSTRIES, INC.
DC 9600 QPS
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Synchronous - 4,200 bps, 9,600 bps; Asynchronous/Synchronous - 7,200 bps
Interface: RS-232C, CCITT V.24, CCITT V.28, CCITT V.29
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Add-on
Features: Autoequalizer, Diagnostics, Fallback, Switchable Data Rates, Multipoint
Date First Installed: 1983

GENERAL DATACOMM INDUSTRIES, INC.
GDC 196J-M
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps
Interface: RS-232C, CCITT V.24, CCITT V.28
Bell-Compatible: 103
Transmission Medium: Voice-Grade Lines
Diagnostics: No
Features: Autoanswer, Alternate Voice/Data, Diagnostics
Distribution Method: End user
Price: $240
Date First Installed: 1981

GENERAL DATACOMM INDUSTRIES, INC.
GDC 212 SD
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 300 bps, 1,200 bps
Interface: RS-232C
Bell-Compatible: 103, 113, 212
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-In
Features: Autodial, Autoequalizer, Diagnostics
Distribution Method: End user, Third-party
Price: $535
Number Installed to Date: 300
Date First Installed: 1983

GENERAL DATACOMM INDUSTRIES, INC.
GDC 21396
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps, 1,200 bps
Interface: RS-232C
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-In
Features: Autodial, Autoequalizer, Autoanswer, Diagnostics
Distribution Method: Third-party
Price: $435
Number Installed to Date: 200
Date First Installed: 1983

GENERAL DATACOMM INDUSTRIES, INC.
GDC 21396
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps, 1,200 bps
Interface: RS-232C, CCITT V.24, CCITT V.28
Bell-Compatible: 103, 212
Transmission Medium: Voice-Grade Lines
Diagnostics: No
Features: Autoequalizer, Autoanswer, Alternate Voice/Data, Diagnostics, Switchable Data Rates
Distribution Method: End user
Date First Installed: 1984

Modems

GENERAL DATACOMM INDUSTRIES, INC.
GDC 2400 ED
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps, 1,200 bps
Interface: RS-232C, CCITT V.24, CCITT V.28
Bell-Compatible: 103, 212
Transmission Medium: Voice-Grade Lines
Features: Autoequalizer, Autoanswer, Alternate Voice/Data, Diagnostics, Switchable Data Rates, Serial Autodial
Distribution Method: End user
Date First Installed: 1984

GENERAL DATACOMM INDUSTRIES, INC.
GDC 9604 WITH 4 CHANNEL MULTIPLEXER
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Synchronous - 4,800 bps, 9,600 bps; Asynchronous/Synchronous - 7,200 bps
Interface: RS-232C, CCITT V.24, CCITT V.28, CCITT V.29
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Add-on
Features: Autoequalizer, Diagnostics, Multiport, Fallback, Switchable Data Rates, Tail-End Controls
Distribution Method: End user, Third-party
Price: $3,195
Number Installed to Date: 2,500
Date First Installed: 1982

GENERAL DATACOMM INDUSTRIES, INC.
DME-9
Modem Class: Modem Eliminator
Transmission Technique: Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Synchronous - 1,200 bps, 2,400 bps, 4,800 bps, 9,600 bps, 14,400 bps
Interface: RS-232C
Transmission Medium: 232 Cable
Features: Switchable Data Rates, Master Timing Source

GENERAL DATACOMM INDUSTRIES, INC.
DC 2030
Modem Class: Short-Haul
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Synchronous - 2,400 bps, 4,800 bps, 9,600 bps, 14,400 bps, 19,200 bps; Asynchronous/Synchronous - 7,200 bps
Transmission Medium: Nonload Twisted Wire
Diagnostics: Yes, Built-in
Features: Autoequalizer, Diagnostics, Switchable Data Rates, Multidrop, Point to Point
Distribution Method: End user, Third-party
Price: $660
Number Installed to Date: 1,000
Date First Installed: 1982

GENERAL DATACOMM INDUSTRIES, INC.
DC 2030
Modem Class: Short-Haul
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Synchronous - 56,000 bps; Asynchronous/ Synchronous - 64,000 bps
Interface: CCITT V.35
Transmission Medium: Nonload Twisted Wire
Diagnostics: Yes, Built-in
Features: Autoequalizer, Diagnostics, Multidrop and Point to Point
Distribution Method: End user, Third-party
Price: $805
Number Installed to Date: 1,000
Date First Installed: 1983

GENERAL DATACOMM INDUSTRIES, INC.
GDC LCM 1010/1020
Modem Class: Short-Haul
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300, 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps, 14,400 bps
Transmission Medium: Nonload Wire Line
Features: Autoequalizer, Diagnostics, Multidrop and Point to Point
Distribution Method: End user, Third-party
Price: $295 to $325
Number Installed to Date: 1,500
Date First Installed: 1982

GENERAL DATACOMM INDUSTRIES, INC.
NMS-2020
Modem Class: Short-Haul
Transmission Technique: Synchronous
Transmission Rate: Synchronous - 2,400 bps, 4,800 bps, 9,600 bps, 14,400 bps, 19,200 bps, Asynchronous/Synchronous - 7,200 bps
Interface: RS-232C
Transmission Medium: Twisted-Pair Wire Line
Diagnostics: Yes, Built-in
Features: Autoequalizer, Diagnostics, Switchable Data Rates, Supports Netcon
Distribution Method: End user

GENERAL DATACOMM INDUSTRIES, INC.
CSU-556A
Modem Class: Channel Service Unit
Transmission Technique: Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Synchronous - 2,400 bps, 4,800 bps, 9,600 bps, 56,000 bps
Interface: DSU/CSU
Transmission Medium: Digital Links
Diagnostics: No
Features: Switchable Data Rates, Terminated DDS Service
Distribution Method: End user, Third-party

GLENAYRE ELECTRONICS
GL 1102 HF PULSE COMPRESSION
Modem Class: Radio Frequency (RF)
Transmission Technique: Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Synchronous - 300 bps
Interface: RS-232C
Transmission Medium: Radio Links
Diagnostics: Yes; Built-in
Features: Autodial, Alternate Voice/Data, Diagnostics, Fallback
Distribution Method: End user, OEM, Third-party
Price: $6,000 to $8,000
Number Installed to Date: Under 100
Date First Installed: October 1983
(See Vendor Profile Page V-13)

GLENAYRE ELECTRONICS
GL 1142 HF MESSAGE TERMINAL
Modem Class: Radio Frequency
Transmission Technique: Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous/ Synchronous - 100 bps
Interface: RS-232C
Transmission Medium: Radio Links
Diagnostics: Yes, Built-in
Features: Autodial, Alternate Voice/Data, Diagnostics, Fallback, Switchable Data Rates, Message Format
Distribution Method: End user, OEM, Third-party
Price: $6,000 to $8,000
Number Installed to Date: 500 - 1,000
Date First Installed: September 1983

GTECH CORP.
CM 7201A
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 1,800 bps
Interface: RS-232C
Bell-Compatible: 202
Transmission Medium: Standard Lease Lines
Diagnostics: No
Distribution Method: End user
Price: $280
Number Installed to Date: Under 100
Date First Installed: September 1983
(See Vendor Profile Page V-13)

GTECH CORP.
GSC 202
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 1,800 bps
Interface: TTL
Bell-Compatible: 202
Transmission Medium: Standard Lease Lines
Diagnostics: Yes, Built-in
Distribution Method: End user
Number Installed to Date: 500 - 1,000
Date First Installed: May 1983

HAYES MICROCOMPUTER PRODUCTS, INC.
MICROMODEM IIE
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps
Interface: Internal Apple Bus
Bell-Compatible: 103
Transmission Medium: Voice-Grade Lines
Diagnostics: No
Features: Autodial, Autoanswer, Switchable Data Rates
Distribution Method: Third-party
Price: $329
Date First Installed: October 1983
(See Vendor Profile Page V-14)

HAYES MICROCOMPUTER PRODUCTS, INC.
MICROMODEM 100
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps
Interface: S100 Bus
Bell-Compatible: 103
Transmission Medium: Voice-Grade Lines
Diagnostics: No
Features: Autodial, Autoanswer, Switchable Data Rates, Pulse/Line Dial Only
Distribution Method: Third-party
Price: $369
Date First Installed: 1977

HAYES MICROCOMPUTER PRODUCTS, INC.
SMARTMODEM 300
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps
Interface: RS-232C
Bell-Compatible: 103
Transmission Medium: Voice-Grade Lines
Diagnostics: No
Features: Autodial, Switchable Data Rates

Distribution Method: Third-party
Price: $269
Date First Installed: July 1981

HAYES MICROCOMPUTER PRODUCTS, INC.
SMARTMODEM 1200
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps, 1,200 bps
Interface: RS-232C
Bell-Compatible: 103
Transmission Medium: Voice-Grade Lines
Diagnostics: No
Features: Autodial, Switchable Data Rates
Distribution Method: Third-party
Price: $699
Date First Installed: September 1982

HAYES MICROCOMPUTER PRODUCTS, INC.
SMARTMODEM 1200B
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps, 1,200 bps
Interface: IBM PC Bus
Bell-Compatible: 103, 212
Transmission Medium: Voice-Grade Lines
Diagnostics: No
Features: Autodial
Distribution Method: Third-party
Price: $599
Date First Installed: May 1983

HONEYWELL, INC.
DCD6710
Modem Class: Line Driver
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 9,600 bps
Interface: RS-232C, CCITT V.24, 20 MA Current Loop
Transmission Medium: Nonload Metallic Pairs
Diagnostics: Yes, Built-in
Features: Autoequalizer, Diagnostics
Distribution Method: End user, Third-party
Price: $295
(See Vendor Profile Page V-14)

HONEYWELL, INC.
DCD6730
Modem Class: Line Driver
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Synchronous - 19,200 bps
Transmission Medium: Nonload Metallic Pairs
Diagnostics: Yes, Built-in
Features: Autoequalizer, Diagnostics
Distribution Method: End user, Third-party
Price: $595

HONEYWELL, INC.
DCD3021
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 1,200 bps, 1,800 bps
Interface: RS-232C
Bell-Compatible: 202
Transmission Medium: Voice-grade Lines
Diagnostics: Yes; Built-in
Features: Alternate Voice/Data, Autoequalizer, Diagnostics
Distribution Method: End user, Third-party
Price: $495

HONEYWELL, INC.
DCD3911
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Synchronous - 2,400 bps
Interface: RS-232C
Bell-Compatible: 201
Transmission Medium: Voice-grade Lines
Diagnostics: Yes, built-in
Features: Alternate Voice/Data, Automatic Answering, Diagnostics
Distribution Method: End user, Third-party
Price: $995

HONEYWELL, INC.
DCD3912
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Synchronous - 2,400 bps
Interface: RS-232C
Bell-Compatible: 201
Transmission Medium: Voice-grade Lines
Diagnostics: Yes; built-in
Features: Alternate Voice/Data, Automatic Answering, Diagnostics
Distribution Method: End user, Third-party
Price: $695

HONEYWELL, INC.
DCD5021
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Rate: Asynchronous - 1,200 bps
Bell-Compatible: 202
Transmission Medium: Voice-grade Lines
Diagnostics: Yes; built-in
Features: Automatic Answering, Diagnostics
Distribution Method: End user, Third-party
Price: $495

HONEYWELL, INC.
DCD3021
Modem Class: Long-Haul
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 300 bps, Asynchronous/ Synchronous - 1,200 bps
Bell-Compatible: 103, 212
Transmission Medium: Voice-grade Lines
Diagnostics: Yes; built-in
Features: Diagnostics
Distribution Method: End user, Third-party
Price: $695

HONEYWELL, INC.
DCD2121
Modem Class: Long-Haul
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous - 300 bps, Asynchronous/ Synchronous - 1,200 bps
Bell-Compatible: 103, 113, 212
Transmission Medium: Voice-grade Lines
Diagnostics: Yes, built-in
Features: Alternate Voice/Data, Autoanswer, Diagnostics
Distribution Method: End user, Third-party
Price: $900

IBM
MODEL 3863-1
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Synchronous - 1,200 bps, 2,400 bps
Interface: RS-232C, CCITT V.24, CCITT V.28
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-in
Features: Autoequalizer, Autoanswer, Diagnostics, Multiport, Switchable Data Rates
Distribution Method: End user
Price: $2,685
Date First Installed: March 1980
(See Vendor Profile Page V-14)

IBM
MODEL 3863-2
Modem Class: Long-Haul
Transmission Technique: Synchronous

New error correcting Stat Mux for the asynchronous world

PIN 9106

- ☐ Provides error correction and line savings for distributed async minicomputer networks
- ☐ Two async channels up to 9600 bps or four at up to 4800 bps
- ☐ Sync or async composite runs up to 9600 bps
- ☐ Answer control compatible with 212 modems
- ☐ Menu driven parameter selection
- ☐ Hardware and software flow control
- ☐ Down-line loading of parameters and echoplex
- ☐ **ALL AT TREMENDOUS SAVINGS**

Call 312-541-6060 for details today.

gandalf™

Gandalf Data, Inc./1019 S. Noel Ave./Wheeling, IL 60090/TWX 910-651-4951

Modems

Transmission Technique: Synchronous
Transmission Mode: Half-Duplex
Transmission Rate: Synchronous - 1,200 bps, 2,400 bps
Interface: RS-232C, CCITT V.24, CCITT V.28
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes, Built-in
Features: Autoequalizer, Autorenewer, Diagnostics, Switchable Data Rates, Antistreaming
Distribution Method: End user
Price: $2,935
Date First Installed: March 1980

IBM
MODEL 3864-1
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Synchronous - 2,400 bps, 4,800 bps
Interface: RS-232C, CCITT V.24, CCITT V.27, CCITT V.26
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-in
Features: Autoequalizer, Autorenewer, Diagnostics, Multiport, Antistreaming
Distribution Method: End user
Price: $3,715
Date First Installed: March 1980

IBM
MODEL 3864-2
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex
Transmission Rate: Synchronous - 2,400 bps, 4,800 bps
Interface: RS-232C, CCITT V.24, CCITT V.26
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-in
Features: Autoequalizer, Autorenewer, Diagnostics, Switchable Data Rates, Antistreaming
Distribution Method: End user
Price: $3,925
Date First Installed: March 1980

IBM
MODEL 3865 MODEL 1&2
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Synchronous - 4,200 bps, 9,800 bps
Interface: RS-232C, CCITT V.24, CCITT V.26
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes, Built-in
Features: Autoequalizer, Autorenewer, Diagnostics, Multiport, Switchable Data Rates, Antistreaming
Distribution Method: End user
Price: $5,885
Date First Installed: June 1980

IBM
RACK-MOUNTED MODEM 3868 MODEL 1
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Synchronous - 1,200 bps, 2,400 bps
Interface: RS-232C, CCITT V.24
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes, Built-in
Features: Autoequalizer, Diagnostics, Multiport, Switchable Data Rates, Antistreaming
Distribution Method: End user
Price: $2,550 to $5,000

IBM
RACK-MOUNTED MODEM 3868 MODEL 2
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Synchronous - 2,400 bps, 4,800 bps
Interface: RS-232C, CCITT V.24, CCITT V.26
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-in
Features: Autoequalizer, Diagnostics, Multiport, Switchable Data Rates, Antistreaming
Distribution Method: End user
Price: $2,550 to $5,000

IBM
RACK-MOUNTED MODEM 3868 MODEL 3
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Synchronous - 4,800 bps, 9,800 bps
Interface: RS-232C, CCITT V.24
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-in
Features: Autoequalizer, Diagnostics, Multiport, Switchable Data Rates, Antistreaming
Distribution Method: End user
Price: $2,550 to $5,000

IBM
RACK-MOUNTED MODEM 3868-MODEL 4
Modem Class: Long-Haul
Transmission Technique: - Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Synchronous - 4,800 bps, 9,800 bps
Interface: RS-232C, CCITT V.24, CCITT V.26
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes, Built-in
Features: Autoequalizer, Diagnostics, Multiport, Switchable Data Rates, Antistreaming
Distribution Method: End user
Price: $2,550 to $5,000

IDE ASSOCIATES, INC.
IDEACOMM 1,200
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 300 bps, 1,200 bps
Interface: RS-232C
Bell-Compatible: 103, 212A
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-in
Features: Autodial, Autorenewer, Alternate Voice/Data, Diagnostics, Switchable Data Rates
Distribution Method: Third-party
Price: $545
Number Installed to Date: 100 - 500
Date First Installed: September 1983
(See Vendor Profile Page V-00)

INFINET, INC.
NCM 14.4
Modem Class: Long-Haul
Transmission Mode: Full-Duplex
Transmission Rate: Synchronous - 9,600 bps, 19,200 bps; Asynchronous/Synchronous - 1,200 bps
Interface: RS-232C
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-in
Features: Autoequalizer, Diagnostics, Multiport, Fallback, Switchable Data Rates, Dial Backup
Distribution Method: End user
(See Vendor Profile Page V-17)

INFINET, INC.
NCM 1200
Modem Class: Long-Haul
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous/Synchronous - 1,200 bps
Interface: RS-232C
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-in
Features: Reverse Channel, Diagnostics
Distribution Method: End user
Price: $1,200
Number Installed to Date: 1,000 - 5,000

INFINET, INC.
NCM 2400
Modem Class: Long-Haul
Transmission Mode: Full-Duplex
Transmission Rate: Synchronous - 1,200 bps; Asynchronous/Synchronous - 2,400 bps
Interface: CCITT V.26
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-in
Features: Reverse Channel, Diagnostics, Fallback, Switchable Data Rates
Distribution Method: End user
Price: $1,400
Number Installed to Date: 5,000 - 10,000

INFINET, INC.
NCM 4800
Modem Class: Long-Haul
Transmission Mode: Full-Duplex
Transmission Rate: Synchronous - 2,400 bps; Asynchronous/Synchronous - 4,800 bps
Interface: CCITT V.27
Transmission Medium: Voice-Grade Lines
Features: Autoequalizer, Reverse Channel, Diagnostics, Fallback, Switchable Data Rates
Distribution Method: End user
Price: $2,400
Number Installed to Date: 1,000 - 5,000

INTERTEL, INC.
NCM 9600
Modem Class: Long-Haul
Transmission Mode: Full-Duplex
Transmission Rate: Synchronous - 4,800 bps, 9,800 bps; Asynchronous/Synchronous - 7200
Interface: CCITT V.29
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-in
Features: Autoequalizer, Reverse Channel, Diagnostics, Multiport, Fallback, Switchable Data Rates
Distribution Method: End user
Price: $4,300
Number Installed to Date: 1,000 - 5,000

INFOTRON SYSTEMS CORP.
LD 210/AB
Modem Class: Line Driver
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 14,400 bps
Interface: RS-232C, CCITT V.24
Bell-Compatible: 43401
Transmission Medium: Unload Metallic Pairs
Features: A/D Loopback
Price: $210
Date First Installed: September 1981
(See Vendor Profile Page V-15)

INFOTRON SYSTEMS CORP.
LD 210/BA
Modem Class: Line Driver
Transmission Technique: Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Synchronous - 2,400 bps, 4,800 bps, 9,800 bps, 14,400 bps
Interface: RS-232C, CCITT V.24, CCITT V.26
Bell-Compatible: 43401
Transmission Medium: Unload Metallic Pairs
Price: $350
Date First Installed: September 1981

INFOTRON SYSTEMS CORP.
DL 96/V.29
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Full-Duplex

Transmission Rate: Synchronous - 4,800 bps, 9,600 bps; Asynchronous/Synchronous - 7,200 bps
Interface: CCITT V.29
Transmission Medium: Voice-Grade Lines
Features: Autoequalizer, Alternate Voice/Data
Price: $4,500
Date First Installed: 1981

INFOTRON SYSTEMS CORP.
DL 201C
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Synchronous - 2,400 bps
Interface: RS-232C, CCITT V.24
Bell-Compatible: 201
Transmission Medium: Voice-Grade Lines
Features: Loopback
Price: $950
Date First Installed: 1982

INFOTRON SYSTEMS CORP.
DL 9600/V.29 DSM
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Synchronous - 4,800 bps, 9,600 bps; Asyhchronous/Synchronous - 7,200 bps
Interface: RS-232C, CCITT V.24, CCITT V.29
Transmission Medium: Voice-Grade Lines
Price: $5,500

INFOTRON SYSTEMS CORP.
DSM 201C
Modem Class: Long-Haul
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous/ Synchronous - 2,400 bps
Bell-Compatible: 201
Transmission Medium: Voice-Grade Lines
Price: $925

INFOTRON SYSTEMS CORP.
DSM 212B
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 1,200 bps
Bell-Compatible: 212
Transmission Medium: Voice-Grade Lines
Price: $750

INTEGRATED DESIGN ENGINEERING, INC.
IDE-300
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous - 300 bps, 1,200 bps
Interface: NCR DM5 Bus
Bell-Compatible: 212
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes, Built-In
Features: Autodial, Autoanswer, Diagnostics, Switchable Data Rates
Distribution Method: End user
Price: $500
Number Installed to Date: Under 500
Date First Installed: September 1983
(See Vendor Profile Page V-16)

INTERACTIVE SYSTEMS/3M
MODEL 630 AUDIO MODEM
Modem Class: Radio Frequency
Transmission Mode: Full-Duplex
Interface: BELL 3002
Transmission Medium: CATV 75 OHM Cable
Diagnostics: No
Distribution Method: End user
Price: $870
Number Installed to Date: Under 100
Date First Installed: 1977
(See Vendor Profile Page V-16)

INTERACTIVE SYSTEMS/3M
MODEL 720 DATA & CONTROL MODEM
Modem Class: Radio Frequency
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous - 9,600 bps
Interface: 10 BN Analog Data
Transmission Medium: CATV 75 Ohm Cable
Diagnostics: Yes, Built-In
Features: Analog Loopback
Distribution Method: End user
Price: $1,390 to $1,490
Number Installed to Date: 100 - 500
Date First Installed: 1982

INTERACTIVE SYSTEMS/3M
MODEL 926 DATA MODEM
Modem Class: Radio Frequency (RF)
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps, 1,800 bps, 10,000 bps, Asynchronous/Synchronous - 600 bps, 1,200 bps, 2,400 bps, 4,800 bps, 9,800 bps
Interface: RS-232C, F Connector
Transmission Medium: CATV 75 Ohm Cable
Features: Analog Loopback
Distribution Method: End user
Price: $890
Number Installed to Date: 500 - 1,000
Date First Installed: 1979

INTERACTIVE SYSTEMS/3M
MODEL 926 DATA MODEM
Modem Class: Radio Frequency
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps, 600 bps, 1,200 bps, 2,400 bps, 4,800 bps, 9,600 bps
Interface: RS-232C, F Connector
Transmission Medium: CATV 75 Ohm Cable
Diagnostics: Yes, Built-In
Features: Analog Loopback
Distribution Method: End user
Price: $890
Number Installed to Date: 1,000 - 5,000
Date First Installed: 1982

INTERACTIVE SYSTEMS/3M
MODEL 960 DATA MODEM
Modem Class: Radio Frequency
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asyndhronous - 110 bps, 300 bps, 600 bps, 1,800 bps, 19,200 bps, 56,000 bps, Asynchronous/Synchronous - 1,200 bps, 2,400 bps, 4,800 bps, 9,600 bps, 14,400 bps, 76,800 bps
Interface: RS-232C
Transmission Medium: CATV 75 Ohm Cable
Diagnostics: Yes, Built-In
Features: Analog Loopback
Distribution Method: End user
Price: $890
Number Installed to Date: 100 - 500
Date First Installed: 1978

INTERACTIVE SYSTEMS/3M
MODEL 980 DATA MODEM
Modem Class: Radio Frequency (RF)
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps, 600 bps, 1,800 bps, 19,200 bps, 56,000 bps, Asynchronous/Synchronous - 1,200 bps, 2,400 bps, 4,800 bps, 9,600 bps, 14,400 bps, 76,800 bps
Interface: CCITT V.35
Transmission Medium: CATV 75 Ohm Cable
Diagnostics: Yes, Built-In
Features: Analog Loopback
Distribution Method: End user
Price: $1,190
Number Installed to Date: 100 - 500
Date First Installed: 1982

INTERBUSINESS CORP.
212A
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps, 1,200 bps
Interface: RS-232C
Bell-Compatible: 103, 212
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes, Built-In
Features: Autodial
Distribution Method: Third-party
Price: $595
Number Installed to Date: 1,000 - 5,000
Date First Installed: December 1980
(See Vendor Profile Page V-16)

INTERBUSINESS CORP.
A1200
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps, 1,200 bps
Interface: RS-232C
Bell-Compatible: 103, 212
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes, Built-In
Features: Autoequalizer, Autoanswer, Diagnostics
Distribution Method: Third-party
Price: $469
Number Installed to Date: 500 - 1,000
Date First Installed: August 1981

INTERBUSINESS CORP.
AC 900
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps
Interface: RS-232C
Bell-Compatible: 103, 113
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-In
Features: Autoequalizer, Autoanswer, Diagnostics
Distribution Method: Third-party
Price: $139
Number Installed to Date: 1,000 - 5,000
Date First Installed: October 1980

INTERBUSINESS CORP.
AUTO DIAL 212A
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps, 1,200 bps
Interface: RS-232C
Bell-Compatible: 103, 113, 212
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-In
Features: Autodial, Autoanswer, Diagnostics, Fallback, Switchable Data Rates
Distribution Method: Third-party
Price: $599
Number Installed to Date: 1,000 - 5,000
Date First Installed: October 1981

INTERBUSINESS CORP.
M1200
Modem Class: Long-Haul
Transmission Technique: Asynchronous

Modems

Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps, 1,200 bps
Interface: RS-232C
Bell-Compatible: 103, 219
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-in
Features: Autoequalizer, Switchable Data Rates
Distribution Method: Third-party
Price: $449
Number Installed to Date: 1,000 - 5,000
Date First Installed: August 1981

INTERBUSINESS CORP.
OEM
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps, 1,200 bps
Interface: RS-232C
Bell-Compatible: 103, 113, 212
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-in
Features: Autodial, Autoanswer, Fallback
Distribution Method: Third-party
Number Installed to Date: 1,000 - 5,000
Date First Installed: May 1983

INTERBUSINESS CORP.
S-100
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps, 1,200 bps
Interface: RS-232C
Bell-Compatible: 103, 212
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes, Built-in
Features: Autodial, Autoanswer, Fallback
Distribution Method: Third-party
Price: $449
Number Installed to Date: 100 - 500
Date First Installed: May 1983

INTERBUSINESS CORP.
STARCOM
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps, 1,200 bps
Interface: RS-232C
Bell-Compatible: 103, 113, 212
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-in
Features: Autodial, Autoanswer, Fallback
Distribution Method: Third-party
Price: $449
Number Installed to Date: 5,000 - 10,000
Date First Installed: October 1981

INTERBUSINESS CORP.
100 RA
Modem Class: Short-Haul
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 9,400 bps, 4,800 bps, 9,600 bps, 14,400 bps, 19,200 bps, 56,000 bps
Interface: RS-232C
Bell-Compatible: 43401
Transmission Medium: Voice-Grade Lines
Diagnostics: No
Features: Multiport
Distribution Method: Third-party
Price: $235
Number Installed to Date: 300 - 1,000
Date First Installed: January 1983

INTERBUSINESS CORP.
300
Modem Class: Short-Haul
Transmission Technique: Synchronous
Transmission Rate: Synchronous - 2,400 bps, 4,800 bps, 9,600 bps, 14,400 bps, 19,200 bps, 56,000 bps
Interface: RS-232C
Bell-Compatible: 43401
Features: Multiport
Distribution Method: Third-party
Price: $495
Number Installed to Date: 100 - 500
Date First Installed: December 1983

INTER-LINK
CLUSTER MODEM EMULATORS
CME-1R
Modem Class: Modem Eliminator
Transmission Technique: Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Synchronous - 2,400 bps, 4,800 bps, 9,600 bps, 14,400 bps
Interface: RS-232C, CCITT V.24, CCITT V.28
Diagnostics: No
Features: Switchable Data Rates.
Distribution Method: Third-party
Price: $875
Number Installed to Date: Under 100
Date First Installed: February 1983
(See Vendor Profile Page V-16)

INTER-LINK
ME-1R
Modem Class: Modem Eliminator
Transmission Technique: Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Synchronous - 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 9,400 bps, 4,800 bps, 9,600 bps, 14,400 bps
Interface: RS-232C, CCITT V.24, CCITT V.28
Diagnostics: Yes; Built-in
Features: Diagnostics, Switchable Data Rates, RTS to CTS Delays
Distribution Method: Third-party
Price: $250
Number Installed to Date: 100 - 500
Date First Installed: 1982

INTER-LINK
LDM-1R
Modem Class: Short-Haul
Transmission Technique: Asynchronous, Synchronous, Isochronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous/ Synchronous - 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps, 14,400 bps
Interface: RS-232C, CCITT V.24, CCITT V.28
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-in
Features: Diagnostics, Switchable Data Rates, RTS and CTS Delays
Distribution Method: Third-party
Price: $245
Number Installed to Date: 100 - 600
Date First Installed: 1983

INTER-LINK
LDM-1V
Modem Class: Short-Haul
Transmission Technique: Asynchronous, Synchronous, Isochronous
Transmission Mode: Full-Duplex
Transmission Rate: Synchronous - 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 9,400 bps, 4,800 bps, 9,800 bps, 19,200 bps, 14,400 bps, 56,000 bps; Asynchronous/ Synchronous - Up to 250K bps
Interface: CCITT V.35
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes, Built-in
Features: Diagnostics, Switchable Data Rates, RTS and CTS Delays
Distribution Method: Third-party
Price: $800
Number Installed to Date: Under 100
Date First Installed: November 1983

INTERNATIONAL DATA SCIENCES, INC.
PHONE LINK ACOUSTIC MODEM
Modem Class: Coupler
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps
Interface: RS-232C
Bell-Compatible: 113
Transmission Medium: Voice-Grade Lines
Diagnostics: No
Features: Self-Test Function
Distribution Method: End user
Price: $199
Number Installed to Date: Under 100
Date First Installed: 1983
(See Vendor Profile Page V-16)

INTERNATIONAL DATA SCIENCES, INC.
AUTO LINK 219
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous - 300 bps, 1,200 bps
Interface: RS-232C
Bell-Compatible: 212
Transmission Medium: Voice-Grade Lines
Features: Autoanswer, Alternate Voice/Data, Switchable Data Rates, Analog Loopback
Distribution Method: End user
Price: $549
Number Installed to Date: Under 100
Date First Installed: 1983.

INTERNATIONAL DATA SCIENCES, INC.
AUTO LINK 1200
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous - 1,200 bps
Interface: RS-232C
Bell-Compatible: 212
Transmission Medium: Voice-Grade Lines
Features: Autoanswer, Alternate Voice/Data, Analog Loopback
Distribution Method: End user
Price: $499
Number Installed to Date: Under 100
Date First Installed: 1983

INTERNATIONAL DATA SCIENCES, INC.
AUTODIAL 912
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous - 300 bps, 1,200 bps
Interface: RS-232C
Bell-Compatible: 103, 219
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-in
Features: Autodial, Autoanswer, Switchable Data Rates, Analog Loopback
Distribution Method: End user
Price: $599
Number Installed to Date: Under 100
Date First Installed: 1983

INTERNATIONAL DATA SCIENCES, INC.
MICRO LINK 300
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex; Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps
Interface: RS-232C
Bell-Compatible: 103, 113
Transmission Medium: Voice-Grade Lines

Diagnostics: No
Features: Autorenewer, Alternate Voice/Data, Analog Loopback
Distribution Method: End user
Price: $239
Date First Installed: 1983

INTERNATIONAL DATA SCIENCES, INC.
MICRO LINK 1200
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous - 1,200 bps
Interface: RS-232C
Bell-Compatible: 212
Transmission Medium: Voice-Grade Lines
Diagnostics: No
Features: Alternate Voice/Data, Analog Loopback
Distribution Method: End user
Price: $449
Number Installed to Date: Under 100
Date First Installed: 1983

INTERNATIONAL DATA SCIENCES, INC.
PASSWORD AUTODIAL 212A MODEM
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous - 300 bps, 1,200 bps
Interface: RS-232C
Bell-Compatible: 103, 212
Transmission Medium: Voice-Grade Lines
Features: Autodial, Autorenewer, Switchable Data Rates
Distribution Method: End user
Price: $449
Number Installed to Date: Under 100
Date First Installed: 1983

INTERNATIONAL DATA SCIENCES, INC.
MODEL 6119
Modem Class: Modem Eliminator
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps, 600 bps, Asynchronous/Synchronous - 1,200 bps, 1,800 bps, 2,400 bps, 7,200 bps; Synchronous - 4,800 bps, 9,600 bps, 14,400 bps, 19,200 bps
Interface: RS-232C
Transmission Medium: Low-Capacity Cable
Distribution Method: End user
Price: $370
Number Installed to Date: 100 - 500
Date First Installed: 1980

INTERNATIONAL DATA SCIENCES, INC.
MODEL 6600H
Modem Class: Short-Haul
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Synchronous - 9,600 bps, 14,400 bps
Interface: RS-232C
Bell-Compatible: 43401
Transmission Medium: Twisted-Pair Conductor
Diagnostics: Yes; Built-In
Features: Diagnostics, Switchable Data Rates, Analog Loopback
Distribution Method: End user
Price: $750
Number Installed to Date: 100 - 500
Date First Installed: 1980

INTERNATIONAL DATA SCIENCES, INC.
MODEL 6600L
Modem Class: Short-Haul
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Synchronous - 2,400 bps, 4,800 bps, 9,600 bps
Interface: RS-232C
Bell-Compatible: 43401
Transmission Medium: Twisted Pair
Diagnostics: Yes, Built-In
Features: Diagnostics, Switchable Data Rates, Analog Loopback
Distribution Method: End user
Price: $750
Number Installed to Date: 100- 500
Date First Installed: 1980

INTERNATIONAL DATA SCIENCES, INC.
MODEL 6200
Modem Class: Short-Haul
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps, 14,400 bps
Interface: RS-232C, TTY Current Loop
Transmission Medium: Metallic Twisted Pair
Features: Analog Loopback
Distribution Method: End user
Price: $250
Number Installed to Date: 100 - 500
Date First Installed: 1980

INTERNATIONAL DATA SCIENCES, INC.
MODEL 6230
Modem Class: Short-Haul
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps
Interface: RS-232C, TTY Current Loop
Bell-Compatible: 43401
Transmission Medium: Metallic Twisted Pair
Diagnostics: Yes, Built-In
Features: Analog Loopback
Distribution Method: End user
Price: $300
Number Installed to Date: 100 - 500
Date First Installed: 1980

INTERNATIONAL DATA SCIENCES, INC.
MODEL 6949
Modem Class: Short-Haul
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 600 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps
Interface: RS-232C, TTY Current Loop
Bell-Compatible: 43401
Transmission Medium: Twisted Pair Conductor
Diagnostics: Yes; Built-In
Features: Diagnostics, Analog Loopback
Distribution Method: End user
Price: $400

INTERNATIONAL MODEM EXCHANGE (TIMECOR)
THE OPERATOR
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 600 bps
Bell-Compatible: 103
Transmission Medium: Voice-Grade Lines
Diagnostics: No
Features: Autorenewer, Switchable Data Rates, Autodisconnect
Distribution Method: End user
Price: $159
Date First Installed: May 1983
(See Vendor Profile Page V-17)

ITT TELECOMM PRODUCTS, INC.
639-646-000-00X
Modem Class: Digital
Transmission Technique: Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous/Synchronous - 2,400 bps, 4,800 bps, 9,600 bps, 14,400 bps, 19,200 bps, 56K bps
Interface: RS-232C, RS-449, CCITT V.35
Transmission Medium: Four-Wire Circuit
Diagnostics: Yes; Built-in
Features: Switchable Data Rates, Autoequalizer, Diagnostics
Distribution Method: End user
Price: $775 - $1,200
Number Installed to Date: 1,000 - 5,000
(See Vendor Profile Page V-17)

J B M ELECTRONICS
MODEM SAVER
Modem Class: Modem Eliminator
Transmission Technique: Synchronous
Transmission Rate: Synchronous - 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps, 14,400 bps, 19,200 bps, 56,000 bps
Interface: RS-232C
Transmission Medium: Digital Links
Diagnostics: No
Distribution Method: Third party
Price: $285
Number Installed to Date: 1,000 - 5,000
Date First Installed: September 1979
(See Vendor Profile Page V-00)

J B M ELECTRONICS
ASYNCHRONOUS/SYNCHRONOUS LINE DRIVER
Modem Class: Line Driver
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Half-Duplex
Transmission Rate: Asynchronous/Synchronous - 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps, 14,400 bps, 19,200 bps, 56,000 bps
Interface: RS-232C
Transmission Medium: Voice-Grade Lines
Diagnostics: No
Distribution Method: Third-Party
Price: $135 - $225
Number Installed to Date: 1,000 - 5,000
Date First Installed: September 1980

KAFUSI LABORATORIES
DT 19.2 DATA TRANSCEIVER
Modem Class: Short-Haul
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous/Synchronous - 14,400 bps
Interface: RS-232C
Bell-Compatible: 43401
Transmission Medium: Metallic Circuit
Diagnostics: No
Distribution Method: End user
Price: $1,190
Number Installed to Date: 500 - 1,000
(See Vendor Profile Page V-17)

KAUFMAN RESEARCH MANUFACTURING, INC.
401 MODEM/PORT CONTENTION UNIT
Modem Class: Modem Eliminator
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex
Transmission Rate: Synchronous - 14,400 bps
Interface: RS-232C
Transmission Medium: Voice-Grade Lines
Diagnostics: No
Features: Switchable Data Rates, Enable/Disable Switch
Distribution Method: End user, Third-party
Price: $985
Number Installed to Date: 100 - 500

Modems

Date First Installed: 1979
(See Vendor Profile Page V-17)

KINEX CORP.
SAB-2X4
Modem Class: Line Driver
Transmission Technique: Asynchronous, Synchronous, Isochronous
Transmission Mode: Half-Duplex, Full-Duplex, Simplex
Transmission Rate: Asynchronous/ Synchronous - 600 bps, 1,200 bps, 2,400 bps, 4,800 bps, 9,600 bps, 14,400 bps
Interface: RS-232C, CCITT V.24, CCITT V.28
Transmission Medium: Metallic Conductor
Features: Diagnostics, Fallback, Switchable Data Rates, Strappable Equalizer
Distribution Method: Third-party
Price: $545
Number Installed to Date: 500 - 1,000
Date First Installed: 1981
(See Vendor Profile Page V-17)

KINEX CORP.
3400/FDX
Modem Class: Long-Haul
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous/ Synchronous - 1,200 bps, 2,400 bps
Interface: RS-232C, CCITT V.24, CCITT V.28
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes, Built-in
Features: Autoequalizer, Autoanswer, Alternate Voice/Data, Diagnostics, Fallback, Switchable Data Rates, Echo Canceling
Distribution Method: Third-party

KINEX CORP.
4000/208/AB
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Synchronous - 4,800 bps
Interface: RS-232C, CCITT V.24, CCITT V.28
Bell-Compatible: 208A/B
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-in
Features: Autoequalizer, Autoanswer, Alternate Voice/Data, Reverse Channel, Diagnostics, Fallback, Switchable Data Rates
Distribution Method: Third-party
Price: $1,725
Number Installed to Date: 500 - 1,000
Date First Installed: May 1981

KINEX CORP.
4000/27
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Synchronous - 2,400 bps, Synchronous - 4,800 bps
Interface: RS-232C, CCITT V.24, CCITT V.28
Bell-Compatible: V.27 BIS
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-in
Features: Autoequalizer, Autoanswer, Alternate Voice/Data, Reverse Channel, Diagnostics, Multiport, Fallback, Switchable Data Rates
Distribution Method: Third-party
Price: $2,225
Date First Installed: 1981

KINEX CORP.
9000/29
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Synchronous - 4,800 bps, 9,600 bps, Asynchronous/Synchronous - 7,200 bps
Interface: RS-232C, CCITT V.24, CCITT V.29
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes, Built-in
Features: Autoequalizer, Alternate Voice/Data, Diagnostics, Fallback, Switchable Data Rates
Distribution Method: Third-party
Price: $2,750
Number Installed to Date: 100 - 500
Date First Installed: 1982

KINEX CORP.
9000/DC28
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Synchronous - 4,800 bps, 9,600 bps, 19,200 bps, Asynchronous/Synchronous - 7,200 bps
Interface: RS-232C, CCITT V.24, CCITT V.28
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-in
Features: Autoequalizer, Autoanswer, Diagnostics, Switchable Data Rates, Data Compression Capabilities
Distribution Method: Third-party
Price: $3,650
Number Installed to Date: Under 100
Date First Installed: 1983

KINEX CORP.
9000/FP
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex
Transmission Rate: Synchronous - 4,800 bps, 9,600 bps; Asynchronous/Synchronous - 7,200 bps
Interface: RS-232C, CCITT V.24, CCITT V.28
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes, Built-in
Features: Autoequalizer, Diagnostics, Fallback, Switchable Data Rates
Distribution Method: Third-party
Price: $3,350
Date First Installed: 1983

KINEX CORP.
9000/MI
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Synchronous - 4,800 bps, 9,600 bps; Asynchronous/Synchronous - 7,200 bps
Interface: RS-232C, CCITT V.24, CCITT V.28
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-in
Features: Autoequalizer, Diagnostics, Multiport, Fallback, Switchable Data Rates, Simulated Control Carrier
Distribution Method: Third-party
Price: $3,650
Number Installed to Date: Under 100
Date First Installed: 1983

KINEX CORP.
4-WIRE BASEBAND
Modem Class: Short-Haul
Transmission Technique: Asynchronous, Synchronous, Isochronous
Transmission Mode: Half-Duplex, Full-Duplex, Simplex
Transmission Rate: Asynchronous/ Synchronous - 600 bps, 1,200 bps, 2,400 bps, 4,800 bps, 9,600 bps, 14,400 bps
Interface: RS-232C, CCITT V.24, CCITT V.28
Transmission Medium: Metallic Conductor
Diagnostics: Yes; Built-in
Features: Diagnostics, Fallback, Switchable Data Rates, Strappable Equalizer
Distribution Method: Third-party

KINEX CORP.
3400/201C
Modem Class: Short-Haul
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Synchronous - 1,200 bps, 2,400 bps
Interface: RS-232C, CCITT V.24, CCITT V.28
Bell-Compatible: 201C
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes, Built-in
Features: Autoanswer, Reverse Channel, Diagnostics, Fallback, Switchable Data Rates
Distribution Method: Third-party

LEE SYSTEMS, INC.
4D1
Modem Class: Infrared
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 14,400 bps, Asynchronous/ Synchronous - 100,000 bps
Interface: RS-232C, RS-449, RS-422, CCITT V.22, CCITT V.24, CCITT V.26, CCITT V.27, CCITT V.28, CCITT V.29, 20 MA Current Loop, 60 MA Current Loop, MIL 188C
Transmission Medium: Infrared light
Features: Diagnostics, Fallback, Switchable Data Rates
Distribution Method: Third-party
Price: $6,650
Number Installed to Date: Under 100
Date First Installed: September 1980
(See Vendor Profile Page V-18)

LEE SYSTEMS, INC.
4DT1/7DT1
Modem Class: Infrared
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - T-1
Interface: RS-449, V.35
Bell-Compatible: 551A
Transmission Medium: Infrared Light
Features: Alternate Voice/Data, Diagnostics
Distribution Method: Third-party
Price: $8,450 to $12,550
Number Installed to Date: Under 100
Date First Installed: September 1982

LEXICON CORP. OF MIAMI
LEX-11
Modem Class: Coupler
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous - 300 bps
Interface: RS-232C
Bell-Compatible: 103
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes, Built-in
Features: Diagnostics
Distribution Method: Third-party
Price: $145
Number Installed to Date: 5,000 - 10,000
Date First Installed: 1983
(See Vendor Profile Page V-18)

LEXICON CORP. OF MIAMI
LEX-11 CCI II
Modem Class: Coupler
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 300 bps
Interface: RS-232C

Bell-Compatible: 103
Transmission Medium: Voice-Grade Lines
Diagnostics: No
Distribution Method: Third-party
Price: $176
Number Installed to Date: 10,000 - 50,000
Date First Installed: 1983

LEXICON CORP. OF MIAMI
LEX-11 CCI 88
Modem Class: Coupler
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 300 bps
Interface: RS-232C
Transmission Medium: Voice-Grade Lines
Diagnostics: No
Distribution Method: Third-party
Price: $219
Number Installed to Date: 10,000 - 50,000
Date First Installed: 1983

LEXICON CORP. OF MIAMI
LEX-11B
Modem Class: Coupler
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 300 bps
Interface: RS-232C
Bell-Compatible: 103
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-in
Features: Diagnostics
Distribution Method: Third-party
Price: $195
Number Installed to Date: 10,000 - 50,000
Date First Installed: 1983

LEXICON CORP. OF MIAMI
LEX-12
Modem Class: Coupler
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 300 bps
Interface: RS-232C
Bell-Compatible: 103
Transmission Medium: Voice-Grade Lines
Features: Switch to Handset
Distribution Method: Third-party
Price: $195
Number Installed to Date: 10,000 - 50,000
Date First Installed: 1981

LEXICON CORP. OF MIAMI
LEX-12B
Modem Class: Coupler
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 300 bps
Interface: RS-232C
Bell-Compatible: 103
Transmission Medium: Voice-Grade Lines
Diagnostics: No
Features: Switch to Handset
Distribution Method: Third-party
Price: $205
Number Installed to Date: 10,000 - 50,000
Date First Installed: 1981

LEXICON CORP. OF MIAMI
LEX-19
Modem Class: Coupler
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex
Transmission Rate: Asynchronous - 1,900 bps
Interface: RS-232C
Bell-Compatible: 202
Transmission Medium: Voice-Grade Lines
Diagnostics: No
Features: Switchable Data Rates, Switch to Handset
Distribution Method: Third-party
Price: $325
Number Installed to Date: 10,000 - 50,000
Date First Installed: 1982

LEXICON CORP. OF MIAMI
LEX-19B
Modem Class: Coupler
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex
Transmission Rate: Asynchronous - 1,200 bps
Interface: RS-232C
Bell-Compatible: 202
Transmission Medium: Voice-Grade Lines
Diagnostics: No
Features: Switchable Data Rates, Switch to Handset
Distribution Method: Third-party
Price: $365
Number Installed to Date: 10,000 - 50,000
Date First Installed: 1982

LEXICON CORP. OF MIAMI
LEX-19
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 300 bps
Interface: RS-232C
Bell-Compatible: 103
Transmission Medium: Voice-Grade Lines
Diagnostics: No
Features: Autoanswer
Distribution Method: Third-party
Price: $119
Number Installed to Date: 10,000 - 50,000
Date First Installed: 1980

LEXICON CORP. OF MIAMI
LEX-19B
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 300 bps
Interface: RS-232C
Bell-Compatible: 103
Transmission Medium: Voice-Grade Lines
Diagnostics: No
Features: Autoanswer
Distribution Method: Third-party
Price: $159
Number Installed to Date: 10,000 - 50,000
Date First Installed: 1980

M/A-COM LINKABIT, INC.
LM 40
Modem Class: Satellite
Transmission Technique: Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Synchronous - 9,000 bps
Interface: CCITT V.35, T-1, DSI, TTL
Transmission Medium: Digital Links
Diagnostics: Yes, Built-in
Features: Diagnostics
Distribution Method: End user
Price: $223 - $256
Number Installed to Date: Under 500
Date First Installed: 1979
(See Vendor Profile Page V-16)

MAGEAR CORP.
Z9600
Modem Class: Short-Haul
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps
Interface: RS-232C, CCITT V.24
Transmission Medium: Voice-Grade Lines
Features: Reverse Channel, Diagnostics, Fallback, Automatic Data Rates
Distribution Method: End user
Price: $167
Number Installed to Date: 500 - 1,000
Date First Installed: March 1980
(See Vendor Profile Page V-16)

MANAGE, INC.
FOM-232A
Modem Class: Fiber-Optic
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous/ Synchronous - 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps, 14,400 bps, 19,200 bps, 56,000 bps
Interface: RS-232C
Transmission Medium: Fiber Optics
Diagnostics: No
Distribution Method: End user, OEM
Price: $475
Number Installed to Date: Under 100
Date First Installed: September 1980
(See Vendor Profile Page V-16)

MANAGE, INC.
FOM-1238
Modem Class: Fiber-Optic
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps, 14,400 bps, 19,200 bps, 56,000 bps
Interface: RS-232C
Transmission Medium: Fiber Optics
Diagnostics: No
Distribution Method: End user, OEM
Price: $325
Number Installed to Date: Under 100

MATH ASSOCIATES, INC.
XR-1000
Modem Class: Fiber-Optic
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous - Up to 100K bps
Interface: RS-232C
Transmission Medium: Fiber Optics
Diagnostics: No
Features: Diagnostics
Distribution Method: End user, OEM, Third-party
Price: $650
Number Installed to Date: Under 100
Date First Installed: October 1981
(See Vendor Profile Page V-16)

MATH ASSOCIATES, INC.
XR-1100
Modem Class: Fiber-Optic
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous - Up to 100K bps
Interface: RS-232C
Transmission Medium: Fiber Optics
Diagnostics: No
Distribution Method: End user, OEM
Price: $410
Number Installed to Date: 100 - 500
Date First Installed: August 1979

MATH ASSOCIATES, INC.
XR-1100/SS
Modem Class: Fiber-Optic
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous - Up to 100K bps
Interface: RS-232C, RS-422
Transmission Medium: Fiber Optics
Diagnostics: No
Features: Direct Plug-In Module
Distribution Method: End user, OEM, Third-party
Price: $349
Number Installed to Date: 100 - 500
Date First Installed: February 1983

MFJ ENTERPRISES
MFJ 1233
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex

Modems

Transmission Rate: Asynchronous - 300 bps
Interface: RS-232C, TTL
Bell-Compatible: 103
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes, Built-in
Features: Alternate Voice/Data, Diagnostics
Distribution Method: End user, Third-party
Price: $126
Date First Installed: January 1982
(See Vendor Profile Page V-19)

MICOM SYSTEMS, INC.
M4008P
Modem Class: Line Driver
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous - 14,400 bps
Interface: RS-232C, CCITT V.24, CCITT V.28
Transmission Medium: Customer Owned Cable
Diagnostics: No
Features: Diagnostics
Distribution Method: Third-party
Price: $220
Number Installed to Date: 1,000 - 5,000
Date First Installed: January 1983
(See Vendor Profile Page V-19)

MICOM SYSTEMS, INC.
M4208P
Modem Class: Line Driver
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Synchronous - 14,400 bps
Interface: RS-232C, CCITT V.28
Transmission Medium: Customer Owned Cable
Diagnostics: No
Features: Diagnostics, Switchable Data Rates
Distribution Method: Third-party
Price: $320
Number Installed to Date: 500 - 1,000
Date First Installed: September 1982

MICOM SYSTEMS, INC.
M420
Modem Class: Line Driver
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 14,400 bps
Interface: RS-232C, CCITT V.24, CCITT V.28
Transmission Medium: Voice-Grade Lines, Customer-Owned Cable
Diagnostics: No
Features: Powered by Interface
Distribution Method: Third-party
Price: $85
Number Installed to Date: 500 - 1,000
Date First Installed: September 1983

MICOM SYSTEMS, INC.
M4024, M4024/ASYNC
Modem Class: Long-Haul
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous/ Synchronous - 2,400 bps
Interface: RS-232C, CCITT V.24, CCITT V.28, CCITT V.26
Bell-Compatible: 201
Transmission Medium: Voice-Grade Lines
Diagnostics: No
Features: Diagnostics, Fallback
Distribution Method: Third-party
Price: $795 to $825
Number Installed to Date: 500 - 1,000
Date First Installed: June 1981

MICOM SYSTEMS, INC.
M4048/DB+
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Synchronous - 4,800 bps
Interface: RS-232C, CCITT V.24, CCITT V.27, CCITT V.26
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes, Built-in
Features: Autoequalizer, Autosenser, Diagnostics, Fallback, Switchable Data Rates
Distribution Method: Third-party
Price: $3,295
Number Installed to Date: Under 100
Date First Installed: December 1983

MICOM SYSTEMS, INC.
M4096/V.27+
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Synchronous - 4,800 bps
Interface: RS-232C, CCITT V.24, CCITT V.26, CCITT V.27, CCITT V.28
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes, Built-in
Features: Autoequalizer, Diagnostics, Fallback, Switchable Data Rates
Distribution Method: Third-party
Price: $2,595
Number Installed to Date: 100 - 500
Date First Installed: February 1983

MICOM SYSTEMS, INC.
M4096/V.27-NF
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Synchronous - 4,800 bps
Interface: RS-232C, CCITT V.24, CCITT V.26, CCITT V.27, CCITT V.28
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes, Built-in
Features: Autoequalizer, Diagnostics, Fallback, Switchable Data Rates
Distribution Method: Third-party
Price: $1,750
Number Installed to Date: 100 - 500
Date First Installed: February 1983

MICOM SYSTEMS, INC.
M4096/4+
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Synchronous - 9,600 bps
Interface: RS-232C, CCITT V.24, CCITT V.26, CCITT V.29
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes, Built-in
Features: Autoequalizer, Diagnostics, Multiport, Fallback, Switchable Data Rates
Distribution Method: Third-party
Price: $3,695
Number Installed to Date: Under 100

MICOM SYSTEMS, INC.
M4096/DB+
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Synchronous - 9,600 bps
Interface: RS-232C, CCITT V.24, CCITT V.27, CCITT V.26, CCITT V.29
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes, Built-in
Features: Autoequalizer, Autosenser, Diagnostics, Fallback, Switchable Data Rates
Distribution Method: Third-party
Price: $3,795
Number Installed to Date: Under 100
Date First Installed: December 1983

MICOM SYSTEMS, INC.
M4096-NF
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Synchronous - 9,600 bps
Interface: RS-232C, CCITT V.24, CCITT V.26, CCITT V.29
Transmission Medium: Voice-Grade Line
Features: Autoequalizer, Diagnostics, Fallback
Distribution Method: Third-party
Price: $2,695
Number Installed to Date: 500 - 1,000
Date First Installed: June 1982

MICOM SYSTEMS, INC.
M4096/V.29+
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Synchronous - 9,600 bps
Interface: RS-232C, CCITT V.24, CCITT V.27, CCITT V.26, CCITT - V.29
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-in
Features: Autoequalizer, Diagnostics, Fallback, Switchable Data Rates
Distribution Method: Third-party
Price: $3,095
Number Installed to Date: 100 - 500
Date First Installed: February 1983

MICOM SYSTEMS, INC.
M4491
Modem Class: Short-Haul
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 9,600 bps
Interface: RS-232C, CCITT V.24, CCITT V.26
Transmission Medium: Voice-Grade Lines
Diagnostics: No
Features: Diagnostics
Distribution Method: Third-party
Price: $250
Number Installed to Date: 500 - 1,000
Date First Installed: January 1982

MICOM SYSTEMS, INC.
M492
Modem Class: Short-Haul
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 14,400 bps
Interface: RS-232C, CCITT V.24, CCITT V.26
Transmission Medium: Voice-Grade Lines
Diagnostics: No
Features: Diagnostics
Distribution Method: Third-party
Price: $330
Number Installed to Date: 500 - 1,000
Date First Installed: September 1981

MICOM SYSTEMS, INC.
M421
Modem Class: Short-Haul
Transmission Technique: Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Synchronous - 14,400 bps
Interface: RS-232C, CCITT V.24, CCITT V.26
Transmission Medium: Voice-Grade Lines
Features: Diagnostics, Switchable Data Rates
Distribution Method: Third-party
Price: $370
Number Installed to Date: 500 - 1,000

MicroComputer

Modems

Date First Installed: November 1981

MICOM SYSTEMS, INC.
2631
Modem Class: Short-Haul
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 14,400 bps
Interface: RS-232C, CCITT V.24, CCITT V.28
Transmission Medium: Voice-Grade Lines
Diagnostics: No
Features: Powered By Interface
Distribution Method: Third-party
Number Installed to Date: 300 - 1,000
Date First Installed: September 1983

MICRO-BAUD SYSTEMS, INC.
86512
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex
Transmission Rate: Asynchronous - 300 bps, Asynchronous - 1,200 bps
Interface: RS-232C, RS-449
Bell-Compatible: 212A
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-in
Features: Autodial, Diagnostics, Switchable Data Rates
Distribution Method: Third-party
Price: $550
Number Installed to Date: 1,000 - 5,000
Date First Installed: January 1982
(See Vendor Profile Page V-19)

MICRO-BAUD SYSTEMS, INC.
86514
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 300 bps, 1,200 bps
Interface: RS-232C
Bell-Compatible: 212A
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-in
Features: Autodial, Diagnostics, Switchable Data Rates, Stores 5 Phone Numbers
Distribution Method: Third-party
Price: $595
Number Installed to Date: 300 - 1,000
Date First Installed: February 1983

MICROCOM, INC.
ERA 2 FOR APPLE IIE
Modem Class: Short-Haul
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps, 1,200 bps
Interface: RS-232C
Bell-Compatible: 103, 212
Transmission Medium: Voice-Grade Lines
Diagnostics: No
Features: Autodial, Autoequalizer, Autoanswer, Fallback, Switchable Data Rates
Distribution Method: Third-party
Price: $429
Date First Installed: January 1984
(See Vendor Profile Page V-19)

MICROCOM, INC.
ERA 2 FOR IBM PC
Modem Class: Short-Haul
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps, 1,200 bps
Interface: RS-232C
Bell-Compatible: 103, 212
Transmission Medium: Voice-Grade Lines
Diagnostics: No
Features: Autoequalizer, Autoanswer, Fallback, Switchable Data Rates
Distribution Method: Third-party
Price: $429
Date First Installed: January 1984

MICROCOM, INC.
ERA 2 FOR IBM PC JR
Modem Class: Short-Haul
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps, 1,200 bps
Interface: RS-232C
Bell-Compatible: 103
Transmission Medium: Voice-Grade Lines
Diagnostics: No
Features: Autodial, Autoequalizer, Autoanswer, Fallback, Switchable Data Rates
Distribution Method: Third-party.
Price: $429
Date First Installed: January 1984

MICROCOM, INC.
PCS FLASH 2000 NETWORKING MODEM
Modem Class: Short-Haul
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps, 1,200 bps
Interface: RS-232C
Bell-Compatible: 103, 212
Transmission Medium: Voice-Grade Lines
Diagnostics: No
Features: Autodial, Autoequalizer, Autoanswer, Clock Calendar, Fallback, Switchable Data Rates
Distribution Method: Third-party
Price: $995
Date First Installed: November 1983

MICROCOM, INC.
RX FLASH 1000 NETWORKING MODEM
Modem Class: Short-Haul
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps, 1,200 bps
Interface: RS-232C
Bell-Compatible: 103, 212
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes, Built-in
Features: Autodial, Autoequalizer, Autoanswer, Diagnostics, Multiport, Fallback, Switchable Data Rates
Distribution Method: Third-party
Price: $895
Date First Installed: November 1983

THE MICROPERIPHERAL CORP.
AUTOPRINT MICROCONNECTION
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 300 bps
Interface: RS-232C
Bell-Compatible: 103
Transmission Medium: Voice-Grade Lines
Features: Autodial, Autoanswer, Alternate Voice/Data
Distribution Method: Third-party
Price: $149
Number Installed to Date: 1,000 - 5,000
Date First Installed: January 1979
(See Vendor Profile Page V-19)

THE MICROPERIPHERAL CORP.
RS232
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 300 bps
Interface: RS-232C
Bell-Compatible: 103
Transmission Medium: Voice-Grade Lines
Features: Autodial, Autoanswer, Alternate Voice/Data
Distribution Method: Third-party
Price: $159 to $199
Number Installed to Date: 1,000 - 5,000

THE MICROPERIPHERAL CORP.
SUBMINIATURE OEM MODEM
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps
Interface: RS-232C
Bell-Compatible: 103
Transmission Medium: Voice-Grade Lines
Diagnostics: No
Features: Autodial, Autoanswer
Distribution Method: OEM
Price: $80
Number Installed to Date: 1,000 - 5,000

THE MICROPERIPHERAL CORP.
TRS 80 MODEL 1
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 300 bps
Interface: RS-232C
Bell-Compatible: 103
Transmission Medium: Voice-Grade Lines
Features: Autodial, Autoanswer, Alternate Voice/Data, Diagnostics
Distribution Method: End user
Price: $250
Date First Installed: July 1979
(See Vendor Profile Page V-20)

MULTI — TECH SYSTEMS, INC.
MT 2016
Modem Class: Long-Haul

MODULAR INTEGRATION, INC.
M96-600
Modem Class: Long-Haul
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous/Synchronous - 1,200 bps, 2,400 bps
Interface: RS-232C
Bell-Compatible: 201
Transmission Medium: Voice-Grade Lines
Date First Installed: September 1980
(See Vendor Profile Page V-20)

MUIRHEAD, INC.
H83 GROUP DATA MODEM
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Full-Duplex, Simplex
Transmission Rate: Asynchronous/Synchronous - 48,000 to 172,000 bps
Interface: RS-422, CCITT V.35
Transmission Medium: Group Band Circuits
Diagnostics: Yes, Built-in
Features: Autoequalizer, Diagnostics, Multiport, Simultaneous Voice/Data
Distribution Method: End user
Number Installed to Date: 100 - 300
Date First Installed: 1973
(See Vendor Profile Page V-20)

MULTI — TECH SYSTEMS, INC.
MT 103J
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps
Interface: RS-232C
Bell-Compatible: 103, 113
Transmission Medium: Voice-Grade Lines
Features: Autoanswer, Alternate Voice/Data, Diagnostics
Distribution Method: End user
Price: $250
Date First Installed: July 1979
(See Vendor Profile Page V-20)

MULTI — TECH SYSTEMS, INC.
MT 2016
Modem Class: Long-Haul

Transmission Technique: Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Synchronous - 2,400 bps
Interface: RS-232C
Bell-Compatible: 201
Transmission Medium: Voice-Grade Lines
Diagnostics: No
Features: Diagnostics
Distribution Method: End user
Price: $685
Date First Installed: September 1982

MULTI — TECH SYSTEMS, INC.
MT 202T
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps, 600 bps, 1,200 bps
Interface: RS-232C
Bell-Compatible: 202
Transmission Medium: Voice-Grade Lines
Diagnostics: No
Features: Diagnostics
Distribution Method: End user
Price: $345
Date First Installed: March 1978

MULTI — TECH SYSTEMS, INC.
MT 212AD
Modem Class: Long-Haul
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps, Asynchronous/ Synchronous - 1,200 bps
Interface: RS-232C
Bell-Compatible: 103, 212
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-in
Features: Autodial, Autoanswer, Alternate Voice/Data, Diagnostics, Switchable Data Rates
Distribution Method: End user
Price: $695
Date First Installed: May 1983

MULTI — TECH SYSTEMS, INC.
MT 212AH
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps, 1,200 bps
Interface: RS-232C
Bell-Compatible: 103, 212
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-in
Features: Autodial, Autoanswer, Alternate Voice/Data, Diagnostics, Switchable Data Rates
Distribution Method: End user
Price: $549
Date First Installed: September 1983

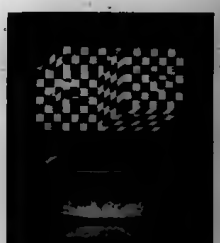
MULTI — TECH SYSTEMS, INC.
MT 213C
Modem Class: Long-Haul
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous/ Synchronous - 1,200 bps
Interface: RS-232C
Bell-Compatible: 212
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-in
Features: Autodial, Autoanswer, Alternate Voice/Data, Diagnostics
Distribution Method: End user
Price: $550
Date First Installed: February 1983

MULTI — TECH SYSTEMS, INC.
MT 213PC
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps, 1,200 bps
Interface: IBM Expansion Slot
Bell-Compatible: 103, 212
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-in
Features: Autodial, Autoanswer, Alternate Voice/Data, Diagnostics, Switchable Data Rates, Software
Distribution Method: End user

For a choice instead of a line

Call GLASGAL

Manufacturer's reps or salesmen usually push only one product line. When Glasgal sales engineers or subdistributors speak, they have over 55 sources of data communication equipment to choose from to make sure that what they recommend is the best technically, at the lowest possible cost, with prompt delivery and hassle free service.



The Glasgal catalog and winter '84 supplement have over 175 pages of system diagrams, charts, brand name product listings and prices. Call for your free copy today.

212's - *from AJ, Cermetek, Concord Data, Datec, GDC, Microcom, Penril, Prentice, Racal Vadic, Rixon (Hayes Compatible), UDS, Ven-Tel.*

Multiplexers - *from Ark, Astrocom, Cermetek, Complexx, Datec, Develcon, GDC, Micom, Network Products, Prentice, Racal Vadic, Rixon, Tellabs, Western Datacom.*

LAN's/Port Selectors - *from Complexx, Develcon, Micom, Network Products, Tellabs.*

Short-Haul Data Sets - *from Ark, Aventi, CRC, Develcon, GDC, Micom, Prentice, RAD, Remark, Rixon, Ven-Tel.*

Protocol Converters - *from Halcyon, Icot, Micom, Microcom, Western Datacom, 3R Computers.*

Full Selection - *switches, cables, cabinets, tools, cable parts, test equipment, transient protectors, patch panels, tie wraps, bridges, dial back-up units, ACU's, DSU's, DAA's, CSU's, error correctors, interface converters, encryption and security devices, network control systems, V.35 equipment, and much more from Amdahl, CD Communications, ComTech, Datapro, Digilog, Electrodata, Electronic Enclosures, ESL, ITS, Hadax, IMM, Lion, Microframe, Switchcraft, Transtector and VIR, etc.*

Free monthly seminars, 5:30 to 8:00 P.M., middle Wednesday of each month at our building in Northvale. Video tapes of seminars are available. **"Techniques in Data Communications"** by Ralph Glasgal, 209 pages, 2nd edition 9/83, Artech House, now in stock.

GLASGAL COMMUNICATIONS INC.
307 Washington Street • Northvale, NJ 07647
(201) 768-8081 TWX 710-991-9681

Modems

Price: $549
Date First Installed: November 1983

MULTITRONICS
CATV MODEM
Modem Class: Short-Haul
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps
Interface: RS-232C
Transmission Medium: Coaxial
Features: Reverse Channel, Switchable Data Rates
Distribution Method: End user
Price: $2,000
(See Vendor Profile Page V-20)

NCR COMTEN, INC.
NCR COMTEN 7183 0100
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Synchronous - 1,200 bps, 2,400 bps
Interface: RS-232C, CCITT V.24, CCITT V.28
Transmission Medium: Voice-Grade
Diagnostics: Yes, Built-in
Features: Autoequalizer, Autoanswer, Diagnostics, Fallback, Switchable Data Rates, NCCF/NPDA Compatible
Distribution Method: End user
(See Vendor Profile Page V-21)

NCR COMTEN, INC.
NCR COMTEN 7183 0200
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Synchronous - 1,200 bps, 2,400 bps
Interface: RS-232C, CCITT V.24
Transmission Medium: Voice-Grade
Diagnostics: Yes, Built-in
Features: Autoequalizer, Autoanswer, Diagnostics, Fallback, Switchable Data Rates, NCCF/NPDA Compatible
Distribution Method: End user

NCR COMTEN, INC.
NCR COMTEN 7184 0100
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Synchronous - 4,800 bps
Interface: RS-232C, CCITT V.24, CCITT V.28
Transmission Medium: Voice-Grade
Diagnostics: Yes, Built-in
Features: Autoequalizer, Autoanswer, Diagnostics, Fallback, Switchable Data Rates, NCCF/NPDA Compatible
Distribution Method: End user
Price: $3,700
Number Installed to Date: 200
Date First Installed: 1983

NCR COMTEN, INC.
NCR COMTEN 7184 0200
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Synchronous - 4,800 bps
Interface: RS-232C, CCITT V.24, CCITT V.28
Transmission Medium: Voice-Grade
Diagnostics: Yes, Built-in
Features: Autoequalizer, Autoanswer, Diagnostics, Fallback, Switchable Data Rates, NCCF/NPDA Compatible
Distribution Method: End user
Price: $5,800
Number Installed to Date: Under 100
Date First Installed: September 1983

NEC TELEPHONE, INC.
D103JR
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Synchronous - 110 bps, 300 bps
Interface: RS-232C
Bell-Compatible: 103
Transmission Medium: Voice-Grade Lines
Features: Autoequalizer, Autoanswer, Standard Diagnostics
Distribution Method: Third-party
Price: $460
Number Installed to Date: 750
Date First Installed: October 1982
(See Vendor Profile Page V-21)

NEC TELEPHONE, INC.
D8P 208
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex
Transmission Rate: Synchronous - 4,800 bps
Interface: RS-232C
Bell-Compatible: 208
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes, Built-in
Features: Autoequalizer, Autoanswer, Diagnostics, Fallback
Distribution Method: Third-party
Price: $1,750
Number Installed to Date: 50
Date First Installed: December 1983

NEC TELEPHONE, INC.
D8P 224
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Synchronous - 2,400 bps
Interface: RS-232C
Bell-Compatible: 103, 212
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-in
Features: Autoequalizer, Autoanswer, Diagnostics, Clock Calendar, Fallback, Switchable Data Rates
Distribution Method: Third-party
Price: $1,195
Number Installed to Date: 45
Date First Installed: December 1983

NEC TELEPHONE, INC.
D8P 4800-U
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Synchronous - 4,800 bps
Interface: RS-232C
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes, Built-in
Features: Autoequalizer, Autoanswer, Diagnostics, Clock Calendar, Fallback
Distribution Method: Third-party
Price: $1,695
Number Installed to Date: 800
Date First Installed: December 1982

NEC TELEPHONE, INC.
D8P 9600-U
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Synchronous - 9,600 bps
Interface: RS-232C
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-in
Features: Autoequalizer, Autoanswer, Diagnostics, Clock Calendar, Fallback, Switchable Data Rates
Distribution Method: Third-party
Price: $2,695
Number Installed to Date: 400
Date First Installed: December 1982

NEC TELEPHONE, INC.
N113C-DR
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 300 bps
Interface: RS-232C
Bell-Compatible: 113
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes, Built-in
Features: Autoequalizer, Autoanswer, Standard Diagnostics
Distribution Method: Third-party
Price: $430
Number Installed to Date: 350
Date First Installed: October 1982

NEC TELEPHONE, INC.
N201C
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Synchronous - 2,400 bps
Interface: RS-232C
Bell-Compatible: 201
Transmission Medium: Voice-Grade Lines
Features: Autoequalizer, Autoanswer, Clock Calendar, Fallback, Switchable Data Rates, Standard Diagnostics
Distribution Method: Third-party
Price: $845
Number Installed to Date: 1,200
Date First Installed: January 1983

NEC TELEPHONE, INC.
N201CR
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Synchronous - 2,400 bps
Interface: RS-232C
Bell-Compatible: 201
Transmission Medium: Voice-Grade Lines
Features: Autoequalizer, Autoanswer, Clock Calendar, Fallback, Switchable Data Rates, Standard Diagnostics
Distribution Method: Third-party
Price: $895
Number Installed to Date: 1,500
Date First Installed: July 1982

NEC TELEPHONE, INC.
N2029R
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 1,200 bps
Interface: RS-232C
Bell-Compatible: 202
Transmission Medium: Voice-Grade Lines
Features: Autoequalizer, Autoanswer, Reverse Channel, Standard Diagnostics
Distribution Method: Third-party
Price: $495
Date First Installed: December 1982

NEC TELEPHONE, INC.
N202T
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 1,800 bps

Interface: RS-232C
Bell-Compatible: 202
Transmission Medium: Voice-Grade Lines
Features: Autoequalizer, Autoanswer, Reverse Channel, Standard Diagnostics
Distribution Method: Third-party
Price: $400
Number Installed to Date: 300
Date First Installed: December 1983

NEC TELEPHONE, INC.
N212AR
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 1,200 bps
Interface: RS-232C
Bell-Compatible: 103, 113, 212
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes, Built-In
Features: Autoequalizer, Autoanswer, Switchable Data Rates, Standard Diagnostics
Distribution Method: Third-party
Price: $695
Number Installed to Date: 3,000
Date First Installed: July 1982

NEC TELEPHONE, INC.
N212MR
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 1,200 bps
Interface: RS-232C
Bell-Compatible: 103, 113, 212A
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-In
Features: Autodial, Autoequalizer, Autoanswer, Alternate Voice/Data, Fallback, Switchable Data Rates, Standard Diagnostics
Distribution Method: Third-party
Price: $795
Number Installed to Date: 1,800
Date First Installed: October 1982

NEC TELEPHONE, INC.
SP1440-U
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Synchronous - 19,200 bps
Interface: RS-232C
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-In
Features: Autoequalizer, Autoanswer, Diagnostics, Multiport, Clock Calendar, Fallback, Switchable Data Rates
Distribution Method: Third-party
Price: $7,800
Number Installed to Date: 200
Date First Installed: October 1983

NEC TELEPHONE, INC.
SP3600-FAST-U
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Synchronous - 9,600 bps
Interface: RS-232C
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes, Built-In
Features: Autoequalizer, Autoanswer, Diagnostics, Clock Calendar, Fallback, Switchable Data Rates
Distribution Method: Third-party
Price: $2,000
Date First Installed: April 1984

NEC TELEPHONE, INC.
SPN 4800-U
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Synchronous - 4,800 bps
Interface: RS-232C
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-In
Features: Autoequalizer, Autoanswer, Diagnostics, Multiport, Clock Calendar, Fallback, Switchable Data Rates
Distribution Method: Third-party
Price: $3,500

NEC TELEPHONE, INC.
SPN 9600-U
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Synchronous - 9,600 bps
Interface: RS-232C
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-In
Features: Autoequalizer, Autoanswer, Diagnostics, Multiport, Clock Calendar, Fallback, Switchable Data Rates
Distribution Method: Third-party
Price: $7,000
Date First Installed: April 1984

NESCO
DSU/CSU 1600 R-4
Modem Class: Digital
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 56,000 bps
Interface: V.35
Bell-Compatible: 501
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes, Built-In
Features: Autoequalizer, Alternate Voice/Data, Reverse Channel, Diagnostics, Multiport
Distribution Method: End user
Price: $1,125
(See Vendor Profile Page V-21)

NESCO
DSU/CSU 1600R-3
Modem Class: Digital
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 2,400 bps, 4,800 bps, 9,600 bps
Interface: RS-232C
Bell-Compatible: 500B
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-In
Features: Autoequalizer, Autoanswer, Alternate Voice/Data, Reverse Channel, Diagnostics, Switchable Data Rates
Distribution Method: End user
Price: $795
Number Installed to Date: Under 100
Date First Installed: 1982

NESCO
DSU/CSU 1600R-5
Modem Class: Digital (DSU)
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 2,400 bps, Asynchronous - 4,800 bps, Asynchronous - 9,600 bps
Interface: RS-232C
Bell-Compatible: 500, 501
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-In
Features: Alternate Voice/Data, Diagnostics, Switchable Data Rates
Distribution Method: End user
Price: $700 to $800
Number Installed to Date: 500 - 1,000

NETWORK PRODUCTS, INC.
NP-48
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Synchronous - 4,800 bps
Interface: RS-232C, CCITT V.24
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-In
Features: Autoequalizer, Diagnostics
Distribution Method: End user, Third-party
Price: $1,800
Number Installed to Date: 500 - 1,000
Date First Installed: January 1978
(See Vendor Profile Page V-21)

NETWORK PRODUCTS, INC.
NP-96
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Synchronous - 4,800 bps, 9,600 bps, Asynchronous/Synchronous - 7,200 bps
Interface: RS-232C, CCITT V.24, CCITT V.29
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-In
Features: Autoequalizer, Diagnostics, Fallback, Switchable Data Rates
Distribution Method: End user, Third-party
Price: $2,750
Number Installed to Date: 1,000 - 5,000
Date First Installed: January 1978

NOAKES DATA COMMUNICATIONS, INC.
N76/5-1
Modem Class: Coupler
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 300 bps
Interface: RS-232C, 20 MA Current Loop
Bell-Compatible: 103, 113
Transmission Medium: Switch Network
Distribution Method: End user
Price: $155
Number Installed to Date: 1,000 - 5,000
(See Vendor Profile Page V-22)

NOAKES DATA COMMUNICATIONS, INC.
N76/5-2
Modem Class: Coupler
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 300 bps
Interface: RS-232C, 20 MA Current Loop
Bell-Compatible: 103, 113
Transmission Medium: Switch Network
Distribution Method: End user
Price: $170
Number Installed to Date: 1,000 - 5,000

NOAKES DATA COMMUNICATIONS, INC.
N103-3
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 300 bps
Interface: RS-232C, 20 MA Loop
Bell-Compatible: 103, 113
Transmission Medium: Voice-Grade Lines
Features: Autoanswer
Distribution Method: End user
Price: $365
Number Installed to Date: 1,000 - 5,000

NOAKES DATA COMMUNICATIONS, INC.
N103-4
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 300 bps
Interface: RS-232C, 20 MA Current Loop
Bell-Compatible: 103, 113

Modems

Transmission Medium: Voice-Grade Lines
Features: Autodial, Autoanswer, TWX Options
Distribution Method: Third-party
Number Installed to Date: 1,000 - 5,000

NORTHERN TELECOM, INC.
2230
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 300 bps, 600 bps, 1,200 bps
Interface: RS-232C, CCITT V.24
Bell-Compatible: 103, 113
Transmission Medium: Voice-Grade Lines
Features: Autoequalizer, Autoanswer, Alternate Voice/Data, Reverse Channel, Diagnostics, Multiport, Switchable Data Rates
Distribution Method: End user
Price: $675
Number Installed to Date: 500 - 1,000
Date First Installed: June 1982
(See Vendor Profile Page V-22)

NORTHERN TELECOM, INC.
2240
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Synchronous - 2,400 bps
Interface: RS-232C, CCITT V.24
Bell-Compatible: 201
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-in
Features: Autoequalizer, Autoanswer, Alternate Voice/Data, Reverse Channel, Diagnostics
Distribution Method: End user
Price: $650
Number Installed to Date: 100 - 500
Date First Installed: April 1981

NORTHERN TELECOM, INC.
2260
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Synchronous - 4,800 bps
Interface: RS-232C, CCITT V.24
Bell-Compatible: 208
Transmission Medium: Voice-Grade Lines
Features: Autoequalizer, Autoanswer, Alternate Voice/Data, Reverse Channel, Diagnostics
Distribution Method: End user
Price: $1,995
Number Installed to Date: 100 - 500
Date First Installed: 1982

NORTHERN TELECOM, INC.
2280
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Synchronous - 9,600 bps
Interface: RS-232C, CCITT V.24
Bell-Compatible: 209
Transmission Medium: Voice-Grade Lines
Features: Autoequalizer, Autoanswer, Alternate Voice/Data, Reverse Channel, Diagnostics
Distribution Method: End user
Price: $2,995
Number Installed to Date: Under 100
Date First Installed: 1982

NOVATION, INC.
CAT
Modem Class: Coupler
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps
Interface: RS-232C
Bell-Compatible: 103, 113
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes, Built-in
Features: Diagnostics, Originate/Answer
Distribution Method: OEM, Third-party
Price: $189
(See Vendor Profile Page V-22)

NOVATION, INC.
CCITT CAT
Modem Class: Coupler
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps
Interface: CCITT V.24, CCITT V.28
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes, Built-in
Features: Originate/Answer
Distribution Method: OEM, Third-party
Price: $299
Date First Installed: 1980

NOVATION, INC.
21 APPLE-CAT II
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps, 600 bps, 1,200 bps
Interface: Apple Parallel Bus
Bell-Compatible: 103, 113, 202, 212
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes, Built-in
Features: Autodial, Autoanswer, Alternate Voice/Data, Diagnostics, Switchable Data Rates
Distribution Method: OEM, Third-party
Price: $389 to $725
Date First Installed: September 1982

NOVATION, INC.
103 SMART-CAT
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps
Interface: RS-232C
Bell-Compatible: 103, 113
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes, Built-in
Features: Autodial, Autoanswer, Alternate Voice/Data, Diagnostics, Switchable Data Rates
Distribution Method: OEM, Third-party
Price: $249
Date First Installed: 1982

NOVATION, INC.
103/212 SMART-CAT
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 300 bps, 1,200 bps
Interface: RS-232C
Bell-Compatible: 103, 113, 212
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-in
Features: Autodial, Autoanswer, Alternate Voice/Data, Diagnostics, Switchable Data Rates
Distribution Method: OEM, Third-party
Price: $595
Date First Installed: 1982

NOVATION, INC.
212 AUTO-CAT
Modem Class: Long-Haul
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps; Asynchronous/ Synchronous - 1,200 bps
Interface: RS-232C
Bell-Compatible: 103, 113, 212
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes, Built-in
Features: Autodial, Autoanswer, Alternate Voice/Data, Diagnostics, Switchable Data Rates
Distribution Method: OEM, Third-party
Price: $695
Date First Installed: 1982

NOVATION, INC.
APPLE-CAT II
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps, 1,200 bps
Interface: Apple Parallel Bus
Bell-Compatible: 103, 113, 202
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-in
Features: Autodial, Autoanswer, Alternate Voice/Data, Diagnostics, Switchable Data Rates
Distribution Method: OEM, Third-party
Price: $389

NOVATION, INC.
D-CAT
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps
Interface: RS-232C
Bell-Compatible: 103, 113
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes, Built-in
Features: Alternate Voice/Data, Diagnostics
Distribution Method: OEM, Third-party
Price: $199
Date First Installed: 1980

NOVATION, INC.
J-CAT
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps
Interface: RS-232C, TTL
Bell-Compatible: 103, 113
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes, Built-in
Features: Autodial, Autoanswer, Alternate Voice/Data, Diagnostics
Distribution Method: OEM, Third-party
Price: $149
Date First Installed: 1982

NOVATION, INC.
PC1200B
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 300 bps, 1,200 bps
Interface: IBM PC Parallel Bus
Bell-Compatible: 103, 113, 212
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-in
Features: Autodial, Autoanswer, Alternate Voice/Data, Diagnostics, Switchable Data Rates
Distribution Method: OEM, Third-party
Price: $595

NU DATA CORP.
108
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 300 bps
Interface: RS-232C, CCITT V.24
Bell-Compatible: 103, 208
Transmission Medium: Voice-Grade Lines

Features: Autoequalizer, Autoanswer, Switchable Data Rates
Distribution Method: End user, Third-party
(See Vendor Profile Page V-22)

OPTELECOM
4116
Modem Class: Fiber-Optic
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 100M bps
Interface: RS-232C, MIL 188C
Transmission Medium: Fiber Optics
Features: Diagnostics, Multiport
Distribution Method: End user, OEM
Price: $160
Number Installed to Date: 100 - 300
(See Vendor Profile Page V-22)

OPTELECOM
4121
Modem Class: Fiber-Optic
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 100M bps
Interface: RS-232C
Transmission Medium: Fiber Optics
Features: Multiport, Status Lights
Price: $160
Number Installed to Date: 100
Date First Installed: April 1982

OPTICAL COMMUNICATIONS CORP.
FD-10K
Modem Class: Fiber-Optic
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps, 10,000 bps
Interface: RS-232C
Transmission Medium: Fiber Optics
Diagnostics: Yes, Add-on
Features: Reverse Channel, Diagnostics, Switchable Data Rates
Price: $1,200
(See Vendor Profile Page V-22)

OPTICAL COMMUNICATIONS CORP.
FD-36K
Modem Class: Fiber-Optic
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps, 14,400 bps, 19,200 bps, 20,000 bps
Interface: RS-232C
Transmission Medium: Fiber Optics
Diagnostics: Yes, Add-on
Features: Reverse Channel, Diagnostics, Switchable Data Rates
Price: $1,690

OPTICAL COMMUNICATIONS CORP.
FD-56K
Modem Class: Fiber-Optic
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps, 600 bps, 1,200 bps; 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps, 14,400 bps, 19,200 bps, 20,000 bps
Interface: RS-232C
Transmission Medium: Fiber Optics
Diagnostics: Yes, Add-on
Features: Reverse Channel, Diagnostics, Switchable Data Rates
Distribution Method: End user

OPTICAL COMMUNICATIONS CORP.
FD-1200
Modem Class: Fiber-Optic
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps, 600 bps, 1,200 bps
Interface: RS-232C
Transmission Medium: Fiber Optics
Diagnostics: Yes; Add-on
Features: Reverse Channel, Diagnostics, Switchable Data Rates
Distribution Method: End user
Price: $1,040
Date First Installed: 1980

PARADYNE CORP.
CHALLENGER 2400
Modem Class: Long-Haul
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous/Synchronous - 1,200 bps, 2,400 bps
Interface: CCITT V.26, CCITT V.27, CCITT V.29
Transmission Medium: Voice-Grade Lines
Features: Diagnostics, Fallback
Price: $700
(See Vendor Profile Page V-23)

PARADYNE CORP.
CHALLENGER 4800
Modem Class: Long-Haul
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous/Synchronous - 2,400 bps, 4,800 bps
Interface: CCITT V.26, CCITT V.27, CCITT V.29
Transmission Medium: Voice-Grade Lines
Features: Diagnostics, Fallback
Price: $1,500

PARADYNE CORP.
CHALLENGER 9600
Modem Class: Long-Haul
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous/Synchronous - 4,800 bps, 9,600 bps; 7,200 bps
Interface: CCITT V.24, CCITT V.26, CCITT V.27, CCITT V.29
Transmission Medium: Voice-Grade Lines
Features: Diagnostics, Fallback
Price: $2,800

PARADYNE CORP.
DTU-1296D
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex
Transmission Rate: Asynchronous - 300 bps, 1,200 bps
Bell-Compatible: 212
Transmission Medium: Voice-Grade Lines
Features: Autodial

PARADYNE CORP.
LSI 34C
Modem Class: Long-Haul
Transmission Technique: Asychronous, Synchronous
Transmission Mode: Half-Duplex
Transmission Rate: Asynchronous/Synchronous - 1,200 bps, Asynchronous/Synchronous - 2,400 bps
Interface: RS-232C
Bell-Compatible: 201
Transmission Medium: Voice-Grade Lines
Date First Installed: 1981

PARADYNE CORP.
MP 14.4
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Synchronous - 9,600 bps, 19,200 bps; Asynchronous/Synchronous - 12K bps
Interface: RS-232C, CCITT V.24, CCITT V.26, MIL 188C
Transmission Medium: Voice-Grade Lines
Features: Autodial, Diagnostics, Fallback, 8 Port Mux
Date First Installed: 1980

PARADYNE CORP.
MP 14.4 SM
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Synchronous - 9,600 bps, 19,200 bps; Asynchronous/Synchronous - 12K bps
Interface: RS-232C, CCITT V.24, CCITT V.26, MIL 188C
Transmission Medium: Voice-Grade Lines
Features: 16 Port Statistical Multiplexer

PARADYNE CORP.
MP 16.8
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Synchronous - 9,600 bps, Asynchronous/Synchronous - 16,000 bps
Interface: RS-232C, CCITT V.24, MIL 188C
Transmission Medium: Voice-Grade Lines
Features: Autodial, Diagnostics, Fallback
Date First Installed: 1981

PARADYNE CORP.
MP 48/3868
Modem Class: Long-Haul
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Half-Duplex
Transmission Rate: Asynchronous/Synchronous - 4,800 bps
Interface: CCITT V.27
Bell-Compatible: 208
Transmission Medium: Voice-Grade Lines
Features: Autoanswer
Date First Installed: 1980

PARADYNE CORP.
MPX 3400
Modem Class: Long-Haul
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous/Synchronous - 1,200 bps, 2,400 bps
Interface: CCITT V.26, CCITT V.27, CCITT V.29
Transmission Medium: Voice-Grade Lines
Features: Autoequalizer, Diagnostics, Fallback
Price: $850
Date First Installed: 1983

PARADYNE CORP.
MPX 4800
Modem Class: Long-Haul
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous/Synchronous - 2,400 bps, 4,800 bps
Interface: CCITT V.26, CCITT V.27, CCITT V.29
Transmission Medium: Voice-Grade Lines
Features: Autoequalizer, Diagnostics, Fallback, Multiplexer Option
Price: $2,800
Date First Installed: 1983

PARADYNE CORP.
MPX 9600
Modem Class: Long-Haul
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous/Synchronous - 4,800 bps, 9,600 bps; Synchronous - 7,200 bps
Interface: CCITT V.26, CCITT V.27, CCITT V.29
Transmission Medium: Voice-Grade Lines
Features: Autoequalizer, Multiplexer Option
Price: $3,400
Date First Installed: 1983

Modems

PEGA, INC.
EXT-1212
Modem Class: Short-Haul
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex
Transmission Rate: Synchronous - 56,000 bps
Interface: CCITT V.24
Transmission Medium: Cable
Diagnostics: No
Features: Reverse Channel, Multiport, Fallback, Switchable Data Rates
Distribution Method: End user
Price: $1,800
(See Vendor Profile Page V-23)

PENRIL CORP.
300/1200
Modem Class: Long-Haul
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 600 bps; Asynchronous/ Synchronous - 1,200 bps
Interface: RS-232C, CCITT V.24, CCITT V.28
Bell-Compatible: 212
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-in
Features: Alternate Voice/Data, Diagnostics, Switchable Data Rates
Distribution Method: Third-party
Price: $625
Number Installed to Date: 5,000 - 10,000
Date First Installed: February 1979
(See Vendor Profile Page V-23)

PENRIL CORP.
300/1200 AUTO DIAL
Modem Class: Long-Haul
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps; Asynchronous/ Synchronous - 1,200 bps
Interface: RS-232C, CCITT V.24, CCITT V.28
Bell-Compatible: 212
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-in
Features: Autodial, Autoanswer, Alternate Voice/Data, Diagnostics, Switchable Data Rates
Distribution Method: Third-party
Price: $850
Number Installed to Date: 5,000 - 10,000
Date First Installed: January 1982

PENRIL CORP.
1800 DED
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex, Full-Duplex, Simplex
Transmission Rate: Asynchronous - 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps
Interface: RS-232C, CCITT V.24, CCITT V.28
Bell-Compatible: 202
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-in
Distribution Method: Third-party
Price: $375
Number Installed to Date: 5,000 - 10,000
Date First Installed: July 1973

PENRIL CORP.
2127
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex, Full-Duplex, Simplex
Transmission Rate: Synchronous - 2,400 bps, 4,800 bps
Interface: RS-232C, CCITT V.24, CCITT V.27, CCITT V.26
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-in
Features: Autodial, Autoequalizer, Alternate Voice/Data, Switchable Data Rates
Distribution Method: Third-party
Price: $1,695
Number Installed to Date: Under 100
Date First Installed: September 1983

PENRIL CORP.
2129
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex, Full-Duplex, Simplex
Transmission Rate: Synchronous - 4,800 bps, 9,600 bps
Interface: RS-232C, CCITT V.24, CCITT V.28, CCITT V.29
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-in
Features: Autoequalizer, Autoanswer, Alternate Voice/Data, Diagnostics, Fallback, Switchable Data Rates
Distribution Method: Third-party
Price: $2,595

PENRIL CORP.
6201 A/B
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex, Full-Duplex, Simplex
Transmission Rate: Synchronous - 4,800 bps
Interface: RS-232C, CCITT V.24, CCITT V.26
Bell-Compatible: 208
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes, Built-in
Features: Autoanswer
Distribution Method: Third-party
Price: $1,750
Number Installed to Date: 600 - 1,000
Date First Installed: January 1982

PENRIL CORP.
6201 DN/PL
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex, Full-Duplex, Simplex
Transmission Rate: Synchronous - 1,200 bps, 2,400 bps
Interface: RS-232C, CCITT V.24, CCITT V.26, CCITT V.28
Bell-Compatible: 201
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-in
Features: Autoanswer, Alternate Voice/Data, Switchable Data Rates
Distribution Method: Third-party
Price: $785 to $795
Number Installed to Date: 1,000 - 5,000
Date First Installed: February 1981

PENRIL CORP.
9102
Modem Class: Short-Haul
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex, Full-Duplex, Simplex
Transmission Rate: Synchronous - 2,400 bps, 4,800 bps, 9,600 bps, 14,400 bps
Interface: RS-232C, CCITT V.24, CCITT V.28
Transmission Medium: Nonloaded Cable
Features: Autoequalizer, Diagnostics
Distribution Method: Third-party
Price: $535
Number Installed to Date: 600 - 1,000
Date First Installed: October 1981

PENRIL CORP.
PSH-96A
Modem Class: Short-Haul
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex, Full-Duplex, Simplex
Transmission Rate: Asynchronous - 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps, 14,400 bps, 19,200 bps
Interface: RS-232C, CCITT V.24, CCITT V.28, 20 mA Current Loop
Transmission Medium: Nonloaded Cable
Diagnostics: No
Distribution Method: Third-party
Price: $250
Number Installed to Date: 5,000 - 10,000
Date First Installed: September 1978

PENRIL CORP.
801C
Modem Class: Autocall Unit
Interface: RS 366
Bell-Compatible: 801C
Transmission Medium: Voice-Grade Lines
Features: Autodial
Distribution Method: Third-party
Price: $675
Number Installed to Date: Under 100
Date First Installed: June 1980

PENRIL CORP.
MCU 48
Modem Class: Port-Sharing
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Interface: RS-232C, CCITT V.24
Diagnostics: No
Distribution Method: OEM
Price: $440
Number Installed to Date: Under 100
Date First Installed: June 1974

PHALO CORP.
ODS-301
Modem Class: Fiber-Optic
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - Up to 100K bps
Interface: RS-232C
Transmission Medium: Fiber Optics
Features: Diagnostics, Remote/Local Loopback
Distribution Method: End user
Price: $625
Date First Installed: 1981
(See Vendor Profile Page V-23)

PHALO CORP.
ODS-309
Modem Class: Fiber-Optic
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous/ Synchronous - 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps, 14,400 bps, 19,200 bps; Synchronous - 56,000 bps
Interface: RS-232C, RS-449, V.35
Transmission Medium: Fiber Optics
Diagnostics: No
Features: Remote/Local Loopback
Distribution Method: End user
Price: $725
Date First Installed: 1981

PHALO CORP.
ODS-308
Modem Class: Fiber-Optic
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Synchronous - 2,000 to 40K bps
Interface: RS-449, V.35
Transmission Medium: Fiber Optics
Diagnostics: No
Features: Remote/Local Loopback
Distribution Method: End user, OEM
Price: $1,750
Date First Installed: 1982

PRENTICE CORP.
ALD/1
Modem Class: Line Driver
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 600 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps

Interface: RS-232C, CCITT V.24, 20 MA Current Loop
Transmission Medium: Twisted-Pair
Features: Diagnostics, Switchable Data Rates
Distribution Method: Third-party
Price: $200 to $300
Number Installed to Date: 10,000 - 50,000
Date First Installed: June 1977
(See Vendor Profile Page V-24)

PRENTICE CORP.
HBLD/1
Modem Class: Line Driver
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Synchronous - 2,400 bps, 4,800 bps, 9,600 bps, 14,400 bps
Interface: RS-232C, CCITT V.24
Transmission Medium: Twisted-Pair
Diagnostics: Yes, Built-in
Features: Diagnostics, Fallback, Switchable Data Rates
Distribution Method: Third-party
Price: $360 to $460
Number Installed to Date: 5,000 - 10,000
Date First Installed: January 1977

PRENTICE CORP.
212 TCM
Modem Class: Long-Haul
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps, 1,200 bps
Interface: RS-232C, CCITT V.24
Bell-Compatible: 103, 212
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-in
Features: Autodial, Autoanswer, Alternate Voice/Data, Diagnostics, Switchable Data Rates, Stored Autodial Directory
Distribution Method: Third-party
Price: $695 to $795
Number Installed to Date: 500 - 1,000
Date First Installed: 1982

PRENTICE CORP.
9600A/B
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Synchronous - 2,400 bps, 4,800 bps, 9,600 bps
Interface: RS-232C, CCITT V.24
Transmission Medium: Voice-Grade Lines
Features: Autoequalizer, Autoanswer, Alternate Voice/Data, Diagnostics, Fallback, Switchable Data Rates
Distribution Method: Third-party
Price: $2,995
Date First Installed: January 1984

PRENTICE CORP.
9630
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Synchronous - 2,400 bps, 4,800 bps, 9,600 bps
Interface: RS-232C, CCITT V.24
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-in
Features: Autoequalizer, Diagnostics, Fallback, Switchable Data Rates
Distribution Method: Third-party
Price: $2,680 to $2,750
Number Installed to Date: Under 100
Date First Installed: November 1983

PRENTICE CORP.
P-V.22
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps; Asynchronous/ Synchronous - 600 bps, 1,200 bps
Interface: RS-232C, CCITT V.22, CCITT V.24, CCITT V.28
Bell-Compatible: 212
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-in
Features: Autorenewer, Alternate Voice/Data, Diagnostics, Fallback, Switchable Data Rates
Distribution Method: OEM
Price: $695 to $795
Number Installed to Date: 1,000 - 5,000
Date First Installed: March 1981

PRENTICE CORP.
P-201C
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex, Full-Duplex, Simplex
Transmission Rate: Synchronous - 2,400 bps
Interface: RS-232C, CCITT V.24
Bell-Compatible: 201
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-in
Features: Autorenewer, Alternate Voice/Data, Diagnostics
Distribution Method: Third-party
Price: $695 to $795
Number Installed to Date: 1,000 - 5,000
Date First Installed: April 1981

PRENTICE CORP.
P-202T
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex, Full-Duplex, Simplex
Transmission Rate: Asynchronous - 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps
Interface: RS-232C, CCITT V.24
Bell-Compatible: 202
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-in
Features: Diagnostics, Switchable Data Rates
Distribution Method: Third-party
Price: $295 to $395
Number Installed to Date: 1,000 - 5,000
Date First Installed: September 1980

PRENTICE CORP.
P-208A/B
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Synchronous - 4,800 bps
Interface: RS-232C, CCITT V.24
Bell-Compatible: 208
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-in
Features: Autoequalizer, Autorenewer, Alternate Voice/Data, Diagnostics
Distribution Method: Third-party
Price: $1,650 to $1,750
Number Installed to Date: Under 100
Date First Installed: September 1983

PRENTICE CORP.
P-212
Modem Class: Long-Haul
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps; Asynchronous/ Synchronous - 1,200 bps
Interface: RS-232C, CCITT V.24
Bell-Compatible: 103, 208
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-in
Features: Autorenewer, Alternate Voice/Data, Diagnostics, Switchable Data Rates
Distribution Method: Third-party
Price: $495 to $595
Number Installed to Date: 5,000 - 10,000
Date First Installed: June 1980

PRENTICE CORP.
TRMODEM
Modem Class: Long-Haul
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps, Asynchronous/ Synchronous - 1,200 bps
Interface: RS-232C, CCITT V.24
Bell-Compatible: 103, 212, VA 3400
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-in
Features: Autorenewer, Alternate Voice/Data, Diagnostics, Switchable Data Rates
Distribution Method: Third-party
Price: $850 to $950
Number Installed to Date: 500 - 1,000
Date First Installed: February 1982

PULSECOM
4911-19 (169C) RECEIVER
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous - Up to 300 bps
Interface: RS-232C, MIL 188-100
Bell-Compatible: 108C
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-in
Features: Diagnostics, Line Impedance Match
Distribution Method: End user, OEM, Third-party
Price: $351
Number Installed to Date: 1,000 - 5,000
Date First Installed: 1976
(See Vendor Profile Page V-24)

PULSECOM
4912-19 (169A) TRANSMITTER
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous - Up to 300 bps
Interface: RS-232C, MIL 188-100
Bell-Compatible: 108A
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-in
Features: Switchable Data Rates, Line Impedance Match
Distribution Method: End user, OEM, Third-party
Price: $351
Number Installed to Date: 1,000 - 5,000
Date First Installed: 1976

RACAL-MILGO, INC.
24 LSI MARK II
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Synchronous - 2,400 bps
Interface: RS-232C, CCITT V.24, CCITT V.28
Bell-Compatible: 201B, 201
Transmission Medium: Voice-Grade Lines
Features: Autoequalizer, Autorenewer, Diagnostics
Distribution Method: End user
Price: $1,450 to $2,050
(See Vendor Profile Page V-24)

RACAL-MILGO, INC.
CMS 12
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous - 1,200 bps
Interface: RS-232C, CCITT V.24
Transmission Medium: Voice-Grade Lines

Modems

Diagnostics: Yes, Built-in
Features: Diagnostics, Dial Back-up
Distribution Method: End user
Price: $1,900 to $2,050

RACAL-MILGO, INC.
CMS 24
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Synchronous - 2,400 bps
Interface: RS-232C, CCITT V.24, CCITT V.28
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-in
Features: Diagnostics, Dial Back-up
Distribution Method: End user
Price: $2,200

RACAL-MILGO, INC.
MODEM 56K
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Synchronous - 56,000 bps
Interface: CCITT V.35
Transmission Medium: Wide-Band Lines
Diagnostics: Yes; Built-in
Features: Statistical Equalizer
Distribution Method: End user
Price: $8,000 to $8,250

RACAL-MILGO, INC.
MODEM 112K
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous/ Synchronous - 112K bps
Interface: CCITT V.35
Transmission Medium: Wide-Band Lines
Diagnostics: Yes; Built-in
Features: Diagnostics, Fallback, Statistical Equalizer
Distribution Method: End user
Price: $16,500 to $17,400

RACAL-MILGO, INC.
MP3 14.4K
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Synchronous - 19,200 bps
Interface: RS-232C, CCITT V.24
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-in
Features: Autoequalizer, Diagnostics, Multiport, Fallback, Switchable Data Rates, Individual Port Carrier Center
Distribution Method: End user
Price: $10,000 to $12,400

RACAL-MILGO, INC.
OMNIMODE CS (CENTRAL SITE)
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Synchronous - 4,800 bps, 9,600 bps
Interface: RS-232C, CCITT V.24, CCITT V.27, CCITT V.28
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes, Built-in
Features: Autoequalizer, Diagnostics, Fallback, Switchable Data Rates
Distribution Method: End user
Price: $2,100 to $3,800
Date First Installed: 1983

RACAL-MILGO, INC.
OMNIMODE 48
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Synchronous - 4,800 bps
Interface: RS-232C, CCITT V.24, CCITT V.28
Transmission Medium: Voice-Grade Lines
Features: Autoequalizer, Diagnostics, Multiport, Fallback, Switchable Data Rates, Front Panel Information
Distribution Method: End user
Price: $2,450 to $4,150
Number Installed to Date: 500 - 1,000
Date First Installed: 1982

RACAL-MILGO, INC.
OMNIMODE 96
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Synchronous - 9,600 bps
Interface: RS-232C, CCITT V.24, CCITT V.28
Transmission Medium: Voice-Grade Lines
Features: Autoequalizer, Diagnostics, Multiport, Fallback, Switchable Data Rates, Front Panel Information
Distribution Method: End user
Price: $4,150 to $5,850
Number Installed to Date: 500 - 1,000
Date First Installed: 1983

RACAL-MILGO, INC.
COM LINK III
Modem Class: Short-Haul
Transmission Technique: Synchronous
Transmission Rate: Synchronous - 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps, 14,400 bps; Asynchronous/Synchronous - 1,200 bps, 19,200 bps
Interface: RS-232C, CCITT V.24
Transmission Medium: 4-Wire Twisted-Pair
Diagnostics: Yes; Built-in
Features: Diagnostics
Distribution Method: End user
Price: $920 to $945

RACAL-VADIC
VA341S
Modem Class: Coupler
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps; Asynchronous/ Synchronous - 1,200 bps
Interface: RS-232C
Bell-Compatible: 103, 113
Transmission Medium: Voice-Grade Lines
Features: Diagnostics
Distribution Method: Third-party
Price: $695
(See Vendor Profile Page V-25)

RACAL-VADIC
VA103 MODEMPHONE
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps
Interface: RS-232C
Bell-Compatible: 103, 113
Transmission Medium: Voice-Grade Lines
Features: Autodial, Autoanswer, Alternate Voice/Data, Diagnostics
Distribution Method: Third-party
Price: $250 to $360
Date First Installed: 1980

RACAL-VADIC
VA212 AUTO DIAL
Modem Class: Long-Haul
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps; Asynchronous/ Synchronous - 1,200 bps
Interface: RS-232C
Bell-Compatible: 103, 212
Transmission Medium: Voice-Grade
Features: Autodial, Autoanswer, Diagnostics
Distribution Method: Third-party
Price: $695
Date First Installed: 1983

RACAL-VADIC
VA212 PAR AUTO DIAL
Modem Class: Long-Haul
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps, Asynchronous/ Synchronous - 1,200 bps
Interface: RS-232C
Bell-Compatible: 103, 212
Transmission Medium: Voice-Grade Lines
Features: Autodial, Diagnostics, Switchable Data Rates
Distribution Method: Third-party
Price: $695
Date First Installed: 1983

RACAL-VADIC
VA212LC
Modem Class: Long-Haul
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps; Asynchronous/ Synchronous - 1,200 bps
Interface: RS-232C
Bell-Compatible: 103, 212
Transmission Medium: Voice-Grade Lines
Features: Autodial, Autoanswer, Diagnostics, Handshaking
Distribution Method: Third-party
Price: $495
Date First Installed: September 1983

RACAL-VADIC
VA319
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps
Interface: RS-232C
Bell-Compatible: 103, 113
Transmission Medium: Voice-Grade Lines
Features: Autodial, Autoanswer, Diagnostics
Distribution Method: End user
Price: $375
Date First Installed: 1981

RACAL-VADIC
VA317
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps
Interface: RS-232C
Bell-Compatible: 113
Transmission Medium: Voice-Grade Lines
Features: Autoanswer, Diagnostics, Switchable Data Rates
Distribution Method: Third-party
Price: $250
Date First Installed: 1976

RACAL-VADIC
VA366
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps
Interface: RS-232C, 20 mA Current Loop
Bell-Compatible: 103, 113
Transmission Medium: Voice-Grade Lines
Features: Alternate Voice/Data, Diagnostics
Distribution Method: Third-party
Price: $375
Date First Installed: 1977

RACAL-VADIC
VA1205/39 SERIES
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex, Full-Duplex

Transmission Rate: Asynchronous - 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps
Interface: RS-232C
Bell-Compatible: 202
Transmission Medium: Voice-Grade
Features: Reverse Channel, Diagnostics
Distribution Method: Third-party
Date First Installed: 1971

RACAL-VADIC
VA1240
Modem Class: Long-Haul
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous/Synchronous - 600 bps, 1,200 bps
Interface: RS-232C, CCITT V.24
Bell-Compatible: 202
Transmission Medium: Voice-Grade Lines
Features: Diagnostics
Distribution Method: Third-party
Price: $290

RACAL-VADIC
VA1250 SERIES DIRECT-CONNECT
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps, 600 bps, 1,200 bps
Interface: RS-232C
Bell-Compatible: 202
Transmission Medium: Voice-Grade Lines
Features: Alternate Voice/Data, Reverse Channel, Diagnostics
Distribution Method: Third-party
Date First Installed: 1978

RACAL-VADIC
VA1250 SERIES OF LEASED-LINE MODEMS
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps
Interface: RS-232C
Bell-Compatible: 202
Transmission Medium: Voice-Grade Lines
Features: Autoanswer, Reverse Channel, Diagnostics
Distribution Method: Third-party
Price: $425 to $550
Date First Installed: 1978

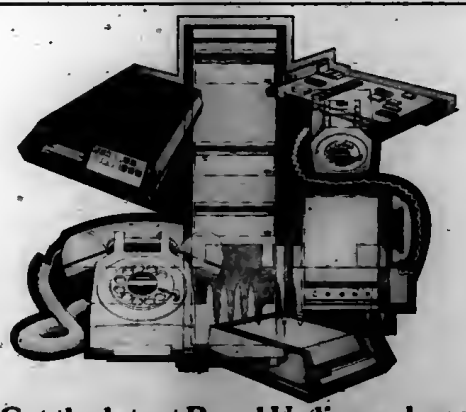
RACAL-VADIC
VA2430 G/K
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Synchronous - 2,400 bps
Interface: RS-232C, CCITT V.26
Bell-Compatible: 201

Features: Autoequalizer, Reverse Channel, Diagnostics
Distribution Method: Third-party
Price: $500
Date First Installed: 1976

RACAL-VADIC
VA2440/48
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex
Transmission Rate: Asynchronous - 1,200 bps, 2,400 bps
Interface: RS-232C, CCITT V.24, CCITT V.26
Bell-Compatible: 201
Transmission Medium: Voice-Grade Lines
Features: Reverse Channel, Diagnostics, Fallback, Switchable Data Rates
Distribution Method: Third-party
Price: $575 to $725

RACAL-VADIC
VA3400 SERIES
Modem Class: Long-Haul
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous/Synchronous - 2,400 bps
Bell-Compatible: 201
Transmission Medium: Voice-Grade
Features: Alternate Voice/Data, Reverse Channel, Diagnostics
Distribution Method: Third-party
Price: $725 to $875

RACAL-VADIC
VA3461 TRIPLE MODEM
Modem Class: Long-Haul
Transmission Technique: Asynchronous



Get the latest Racal-Vadic modems and couplers from MTI Systems Corp.

We are authorized distributors for Racal-Vadic, so we get their latest equipment first. We sell, rent and lease modems, acoustic couplers, line drivers, multiplexors, data switchers, protocol converters, everything you could need for data communications. We supply cables, switches, and all the rest.

MTI has the expertise to answer your questions and help you configure your network. In the New York, New Jersey and Ohio areas, our field sales engineers will provide on-site consultation, and our service engineers will install the equipment and maintain it with expert service.

What about price? We want your business and we intend to be very competitive. Call us today for all your data communications needs.

New York: 516/621-6200, 212/767-0677, 518/449-5959
Outside N.Y.S.: 800/645-6530
New Jersey: 201/227-5552
Ohio: 216/464-6688

mti

Applications Specialists & Distributors, New York, New Jersey and Ohio.
DEC, Intel, Texas Instruments, Dataproducts, Lear Seigler, Diablo, Esprit Intecolor, Racal-Vadic, MICOM, Ventel, Develcon, Dig. Eng., U.S.Design Cipher, Protocol Computers, MicroPro, Microsoft, Polygon and Select.

Modems

Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps, 1,200 bps
Bell-Compatible: 103, 212
Features: Autodial, Autoanswer, Alternate Voice/Data, Diagnostics
Distribution Method: Third-party
Price: $675

RACAL-VADIC
VA3455
Modem Class: Long-Haul
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous/ Synchronous - 1,200 bps
Interface: RS-232C
Transmission Medium: Voice-Grade Lines
Features: Autoanswer, Alternate Voice/Data, Diagnostics
Distribution Method: Third-party
Price: $775
Number Installed to Date: 5,000 - 10,000
Date First Installed: 1977

RACAL-VADIC
VA3467
Modem Class: Long-Haul
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 600 bps; Asynchronous/ Synchronous - 1,200 bps
Interface: RS-232C
Bell-Compatible: 103, 212
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-in
Features: Autoanswer, Diagnostics, Switchable Data Rates
Distribution Method: Third-party
Date First Installed: 1977

RACAL-VADIC
VA3465 SERIES
Modem Class: Long-Haul
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 600 bps; Asynchronous/ Synchronous - 1,200 bps
Interface: RS-232C
Bell-Compatible: 103, 113, 212
Transmission Medium: Voice-Grade Lines
Features: Autoanswer, Diagnostics
Distribution Method: Third-party
Price: $950
Date First Installed: 1981

RACAL-VADIC
VA4400 SERIES
Modem Class: Long-Haul
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 110 bps; 600 bps; Synchronous - 1,200 bps, 2,400 bps
Interface: RS-232C
Bell-Compatible: 103, 212
Transmission Medium: Voice-Grade Lines
Features: Autodial, Autoequalizer, Autoanswer, Diagnostics, Switchable Data Rates
Distribution Method: Third-party
Price: $1,745 to $1,945
Date First Installed: 1982

RACAL-VADIC
VA4848 SERIES
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Synchronous - 4,800 bps
Interface: RS-232C, CCITT V.24, CCITT V.28
Bell-Compatible: 208
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-in
Features: Autodial, Autoequalizer, Autoanswer, Diagnostics
Distribution Method: Third-party
Price: $1,350
Date First Installed: 1982

RAYCOM SYSTEMS, INC.
3000
Modem Class: Fiber-Optic
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps, 14,400 bps, 19,200 bps, 56,000 bps, 100K bps
Interface: RS-232C
Transmission Medium: Fiber Optics
Diagnostics: Yes, Built-in
Features: Diagnostics
Distribution Method: OEM
Price: $250
Number Installed to Date: Under 100
Date First Installed: October 1983
(See Vendor Profile Page V-00)

RAYCOM SYSTEMS, INC.
2200
Modem Class: Fiber-Optic
Transmission Technique: Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Synchronous - 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps, 14,400 bps, 19,200 bps, 56,000 bps; Asynchronous/Synchronous - 2,500 bps
Interface: Coaxial Connector RG-62
Transmission Medium: Fiber Optics
Diagnostics: Yes; Built-in
Features: Diagnostics
Distribution Method: OEM
Price: $350
Number Installed to Date: Under 100
Date First Installed: March 1984

RAYCOM SYSTEMS, INC.
3000
Modem Class: Fiber-Optic
Transmission Technique: Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Synchronous - 1,200 bps, 1,800 bps; 2,400 bps; 4,800 bps, 9,600 bps, 14,400 bps, 19,200 bps, 56,000 bps, Asynchronous/Synchronous - 2,500 bps
Interface: RS-232C, RS-422
Transmission Medium: Fiber Optics
Features: Diagnostics, Clock Calendar, Switchable Data Rates
Distribution Method: OEM
Price: $320
Number Installed to Date: Under 100

RFL INDUSTRIES
6386
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 1,200 bps
Interface: RS-232C
Bell-Compatible: 212
Transmission Medium: Voice-Grade Lines
Diagnostics: No
Distribution Method: OEM
Price: $360
Number Installed to Date: 1,000 - 5,000
Date First Installed: January 1977
(See Vendor Profile Page V-25)

RFL INDUSTRIES
6396
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 1,200 bps
Interface: RS-232C
Transmission Medium: Voice-Grade Lines
Diagnostics: No
Features: Alternate Voice/Data
Distribution Method: OEM
Price: $3,800
Number Installed to Date: Under 100
Date First Installed: January 1981

REXON, INC.
OEM 212A FOR CUSTOM APPLICATIONS
Modem Class: Long-Haul
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 300; Synchronous - 1,200 bps
Interface: RS-232C, TTL
Bell-Compatible: 103, 113, 212
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-in
Features: Autodial, Alternate Voice/Data, Diagnostics
Distribution Method: End user, Third-party
(See Vendor Profile Page V-25)

REXON, INC.
PC 212A MODEM FOR IBM PC AND PC-XT
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 600 bps; 1,200 bps
Bell-Compatible: 103, 113, 212
Transmission Medium: Voice-Grade Lines
Diagnostics: No
Features: Autodial, Autoanswer, Alternate Voice/Data, Switchable Data Rates
Distribution Method: End user, Third-party
Price: $499
Date First Installed: March 1983

REXON, INC.
R14.4 MODEM
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Synchronous - 9,600 bps, 19,200 bps
Interface: RS-232C
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-in
Features: Autoequalizer, Diagnostics, Multiport, Fallback
Distribution Method: End user, Third-party

REXON, INC.
R108J LSI MODEM
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 300 bps
Interface: RS-232C
Bell-Compatible: 103, 113, 212
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-in
Features: Autoanswer, Alternate Voice/Data, Diagnostics
Distribution Method: End user, Third-party

REXON, INC.
R212A INTELLIGENT MODEM
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 600 bps, 1,200 bps
Interface: RS-232C
Bell-Compatible: 103, 113, 212
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes, Built-in
Features: Autodial, Autoanswer, Alternate Voice/Data, Diagnostics
Distribution Method: End user, Third-party

REXON, INC.
R212A LSI MODEM
Modem Class: Long-Haul
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 600 bps, 1,200 bps
Interface: RS-232C
Bell-Compatible: 103, 212
Transmission Medium: Voice-Grade

Diagnostics: Yes; Built-in
Features: Autodial, Autoanswer, Alternate Voice/Data, Diagnostics
Distribution Method: Third-party

RIXON, INC.
R9434 LSI MODEM
Modem Class: Long-Haul
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous/Synchronous - 1,200 bps, 2,400 bps
Interface: RS-232C, CCITT V.24, CCITT V.28
Bell-Compatible: 212
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes, Built-in
Features: Autoanswer, Alternate Voice/Data, Diagnostics
Distribution Method: End user, Third-party

RIXON, INC.
RV .29/2 MODEM SYSTEM
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Synchronous - 4,800 bps, 9,600 bps
Interface: RS-232C
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-in
Features: Autoequalizer, Diagnostics, Multiport, Fallback
Distribution Method: End user, Third-party

RIXON, INC.
T103J LSI MODEM
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 300 bps
Interface: RS-232C
Bell-Compatible: 103, 113, 212
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-in
Features: Autoanswer, Reverse Channel, Diagnostics
Distribution Method: End user, Third-party

RIXON, INC.
T108 LSI DATA MODEM
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 300 bps
Interface: RS-232C
Bell-Compatible: 100
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-in
Features: Alternate Voice/Data, Diagnostics
Distribution Method: End user, Third-party

RIXON, INC.
T113C LSI DATA MODEM
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 300 bps
Interface: RS-232C
Bell-Compatible: 103, 113, 212
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-in
Features: Alternate Voice/Data, Diagnostics
Distribution Method: End user, Third-party

RIXON, INC.
T202S LSI DATA MODEM
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex
Transmission Rate: Asynchronous - 1,200 bps
Interface: RS-232C
Bell-Compatible: 202
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-in
Features: Autodial, Autoanswer, Alternate Voice/Data, Reverse Channel, Diagnostics
Distribution Method: End user, Third-party

RIXON, INC.
T202T LSI DATA MODEM
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous - 1,800 bps
Interface: RS-232C
Bell-Compatible: 202
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-in
Features: Autoequalizer, Reverse Channel, Diagnostics
Distribution Method: End user, Third-party

RIXON, INC.
T212A LSI DATA MODEM
Modem Class: Long-Haul
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 300 bps, Synchronous - 1,200 bps
Interface: RS-232C
Bell-Compatible: 103, 113, 212
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-in
Features: Autodial, Autoanswer, Alternate Voice/Data, Fallback
Distribution Method: End user, Third-party

RIXON, INC.
TA 208A/B LSI MODEM
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Synchronous - 4,800 bps
Interface: RS-232C
Bell-Compatible: 208, 208B
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-in
Features: Autodial, Autoequalizer, Autoanswer, Alternate Voice/Data, Diagnostics
Distribution Method: End user, Third-party

RIXON, INC.
LDM 719 LIMITED-DISTANCE DATA MODEM
Modem Class: Short-Haul
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous - 9,600 bps
Interface: RS-232C
Transmission Medium: Nonload Metallic Cable Pair
Diagnostics: Yes; Built-in
Features: Diagnostics
Distribution Method: End user, Third-party

RIXON, INC.
LDM 739 LIMITED-DISTANCE DATA MODEM
Modem Class: Short-Haul
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Synchronous - 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps, 14,400 bps, 19,200 bps; Asynchronous/Synchronous - 3,600 bps
Interface: RS-232C
Transmission Medium: Nonload Metallic Cable Pair
Diagnostics: Yes; Built-in
Features: Autoequalizer
Distribution Method: End user, Third-party

ROCKWELL INTERNATIONAL
R24 THREE MODULE SET
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Synchronous - 1,200 bps, 2,400 bps
Interface: RS-232C, CCITT V.26
Bell-Compatible: 201
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Add-on
Features: Switchable Data Rates
Distribution Method: OEM, Third-party
Date First Installed: 1980
(See Vendor Profile Page V-25)

ROCKWELL INTERNATIONAL
R24DC
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex
Transmission Rate: Synchronous - 1,200 bps, 2,400 bps
Interface: RS-232C, CCITT V.26
Bell-Compatible: 201
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Add-on
Features: Autodial, Autoanswer, Switchable Data Rates
Distribution Method: OEM, Third-party
Date First Installed: 1981

ROCKWELL INTERNATIONAL
R34LL
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Synchronous - 1,200 bps, 2,400 bps
Interface: RS-232C, CCITT V.26
Bell-Compatible: 201, 201 B/C
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Add-on
Features: Switchable Data Rates
Distribution Method: OEM, Third-party
Date First Installed: 1982

ROCKWELL INTERNATIONAL
R48DP
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Synchronous - 2,400 bps, 4,800 bps
Interface: RS-232C, CCITT V.24, CCITT V.27
Bell-Compatible: 208
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-in
Features: Autoequalizer, Diagnostics, Switchable Data Rates
Distribution Method: OEM, Third-party

ROCKWELL INTERNATIONAL
R96DP
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Synchronous - 2,400 bps, 4,800 bps, 9,600 bps
Interface: RS-232C, CCITT V.24, CCITT V.27, CCITT V.29
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-in
Features: Autoequalizer, Diagnostics, Switchable Data Rates
Distribution Method: OEM, Third-party

ROCKWELL INTERNATIONAL
R96PAX
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex
Transmission Rate: Synchronous -

Modems

300 bps, 2,400 bps, 9,600 bps
Interface: RS-232C, CCITT V.24, CCITT V.27, CCITT V.29
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-in
Features: Autoequalizer, Diagnostics, Switchable Data Rates
Distribution Method: Third-party
Date First Installed: 1983

ROCKWELL INTERNATIONAL
R96FT
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Synchronous - 110 bps, 2,400 bps, 4,800 bps, 9,600 bps
Interface: RS-232C, CCITT V.24, CCITT V.27, CCITT V.29
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-in
Features: Autoequalizer, Diagnostics, Switchable Data Rates
Distribution Method: OEM

ROCKWELL INTERNATIONAL
R96M
Modem Class: Long-Haul
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous/ Synchronous - 300 bps, 600 bps, 1,200 bps, 2,400 bps
Interface: RS-232C, CCITT V.22, CCITT V.24, CCITTV.22BIS
Bell-Compatible: 103, 212, 212A
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-in
Features: Autodial, Autoequalizer, Autoanswer, Alternate Voice/Data, Diagnostics, Switchable Data Rates
Distribution Method: OEM, Third-party

ROCKWELL INTERNATIONAL
R1212DC
Modem Class: Long-Haul
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous/ Synchronous - 300 bps, 600 bps, 1,200 bps
Interface: RS-232C, CCITT V.22, CCITT V.24
Bell-Compatible: 103, 212, 212A
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-in
Features: Autodial, Autoequalizer, Autoanswer, Alternate Voice/Data, Diagnostics, Switchable Data Rates
Distribution Method: OEM, Third-party

ROCKWELL INTERNATIONAL
R1212M
Modem Class: Long-Haul
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous/ Synchronous - 300 bps, 600 bps, 1,200 bps, 2,400 bps
Interface: RS-232C, CCITT V.22, CCITT V.24, CCITT V.22BIS
Bell-Compatible: 103, 212, 212A
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-in
Features: Autodial, Autoequalizer, Autoanswer, Alternate Voice/Data, Diagnostics, Switchable Data Rates
Distribution Method: OEM, Third-party

ROCKWELL INTERNATIONAL
R1212MC
Modem Class: Long-Haul
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous/ Synchronous - 300 bps, 600 bps, 1,200 bps
Interface: RS-232C, CCITT V.22, CCITT V.24
Bell-Compatible: 103, 212, 212A
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-in
Features: Autodial, Autoequalizer, Autoanswer, Alternate Voice/Data, Diagnostics, Switchable Data Rates
Distribution Method: OEM, Third-party

ROCKWELL INTERNATIONAL
R2424DC
Modem Class: Long-Haul
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous/ Synchronous - 300 bps, 600 bps, 1,200 bps, 2,400 bps
Interface: RS-232C, CCITT V.22, CCITT V.24, CCITT V.22BIS
Bell-Compatible: 103, 212, 212A
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-in
Features: Autodial, Autoequalizer, Autoanswer, Alternate Voice/Data, Diagnostics, Switchable Data Rates
Distribution Method: OEM, Third-party

ROCKWELL INTERNATIONAL
V27P/1
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Synchronous - 300 bps, 2,400 bps, 4,800 bps
Interface: RS-232C, T.30
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Add-on
Features: Autoequalizer, Switchable Data Rates
Distribution Method: OEM
Date First Installed: 1981

ROCKWELL INTERNATIONAL
V96P/1
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Synchronous - 300 bps, 2,400 bps, 4,800 bps, 9,600 bps
Interface: RS-232C, CCITT V.27, CCITT V.29
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes, Add-on
Features: Autoequalizer, Switchable Data Rates
Distribution Method: OEM
Date First Installed: September 1981

SCHNEIDER INSTRUMENT CO.
MCT-2
Modem Class: Digital
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps
Interface: RS-232C
Transmission Medium: Voice-Grade Lines
Diagnostics: No
Features: Autodial, Autoanswer, Clock Calendar, Switchable Data Rates
Distribution Method: End user
Price: $3,425
Number Installed to Date: Under 100
Date First Installed: January 1980
(See Vendor Profile Page V-28)

SCIENTIFIC ATLANTA, INC.
6402
Modem Class: Short-Haul
Transmission Technique: Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous/ Synchronous - T-1
Interface: RS-449, RS-422, DS1
Transmission Medium: Coaxial Lines
Diagnostics: Yes; Built-in
Features: Diagnostics
Distribution Method: End user, OEM
Price: $4,000
Number Installed to Date: Under 100
Date First Installed: December 1982
(See Vendor Profile Page V-28)

SCIENTIFIC RADIATION CORP.
6010 SERIES OPTICAL DATA LINK
Modem Class: Short-Haul
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 2,400 bps
Interface: RS-232C
Transmission Medium: Free Air
Diagnostics: No
Distribution Method: End user, Third-party
Price: $299 to $339
Number Installed to Date: Under 100
Date First Installed: 1980
(See Vendor Profile Page V-28)

SENSORMATIC ELECTRONICS CORP.
IDEC 9000 SERIES
Modem Class: Short-Haul
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous/ Synchronous - 9,600 bps
Interface: RS-232C
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-in
Features: Autodial, Autoequalizer, Autoanswer, Alternate Voice/Data, Diagnostics, Multiport, Fallback, Switchable Data Rates, Simultaneous Voice/Data
Distribution Method: End user
Price: $500
Number Installed to Date: 100 - 500
Date First Installed: January 1983
(See Vendor Profile Page V-28)

SONEX, INC.
2103
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 300 bps
Interface: RS-232C
Bell-Compatible: 103
Transmission Medium: Voice-Grade Lines
Diagnostics: No
Features: Autoanswer, Reverse Channel
Distribution Method: OEM
Price: $250
Number Installed to Date: Under 100
Date First Installed: January 1972
(See Vendor Profile Page V-28)

SONEX, INC.
2202
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous - 1,800 bps, 1,800 bps
Interface: RS-232C
Bell-Compatible: 202
Transmission Medium: Voice-Grade Lines
Diagnostics: No
Features: Autoanswer
Distribution Method: OEM
Price: $400
Number Installed to Date: Under 100
Date First Installed: January 1972

SONEX, INC.
3407
Modem Class: Long-Haul
Interface: RS-232C
Bell-Compatible: 407E
Transmission Medium: Voice-Grade Lines
Diagnostics: No
Features: Autoanswer
Distribution Method: OEM
Price: $500
Number Installed to Date: 500 - 1,000

SPERRY CORP.
DATA COMMUNICATION MODULE (TYPE 8616)
Modem Class: Modem Eliminator
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, Asynchronous/ Synchronous - 2,400 bps, 4,800 bps, 9,600 bps; Synchronous - 7,800 bps, 14,400 bps
Interface: RS-232C
Transmission Medium: Voice-Grade Lines
Diagnostics: No
Features: Diagnostics, Switchable Data Rates
Distribution Method: End user
Price: $652

Number Installed to Date: 1,000 - 5,000
Date First Installed: 1981
(See Vendor Profile Page V-26)

TANDY CORP.
AC- 26-1174
Modem Class: Coupler
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous - 300 bps
Interface: RS-232C
Bell-Compatible: 103
Transmission Medium: Voice-Grade Lines
Diagnostics: No
Distribution Method: End user
Price: $149
(See Vendor Profile Page V-29)

TANDY CORP.
76-1068/1069 (ACU)
Modem Class: Long-Haul
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 300 bps, Asynchronous/ Synchronous - 1,200 bps
Interface: RS-232C
Bell-Compatible: 103, 212
Transmission Medium: Voice-Grade Lines
Diagnostics: No
Features: Autodial, Autoanswer, Switchable Data Rates
Distribution Method: End user
Price: $699 to $848

TANDY CORP.
DC MODEM III 26-1175
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps
Interface: RS-232C
Bell-Compatible: 103
Transmission Medium: Voice-Grade Lines
Features: Direct Connect
Distribution Method: End user
Price: $99

TANDY CORP.
DC MODEM II 26-1173
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps
Interface: RS-232C
Bell-Compatible: 103
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Add-on
Features: Autodial, Autoanswer, Remote/Local Loopback
Distribution Method: End user
Price: $199

TEK-COM, INC.
TC3001
Modem Class: Coupler
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous - 300 bps
Interface: RS-232C, 20 MA Current Loop
Bell-Compatible: 103
Transmission Medium: Voice-Grade Lines
Distribution Method: End user
Price: $195 to $265
Date First Installed: 1979
(See Vendor Profile Page V-30)

TEK-COM, INC.
TC3002
Modem Class: Coupler
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous - 300 bps
Interface: RS-232C, 20 MA Current Loop
Bell-Compatible: 103, 113
Transmission Medium: Voice-Grade Lines
Features: Autodial
Distribution Method: OEM
Price: $295
Date First Installed: 1979

TEK-COM, INC.
TC3008
Modem Class: Coupler
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous - 300 bps
Interface: RS-232C
Bell-Compatible: 103, 113
Transmission Medium: Voice-Grade Lines
Features: Autoanswer
Price: $195
Date First Installed: September 1979

TEK-COM, INC.
4799
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps
Interface: RS-232C
Bell-Compatible: 103
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-in
Features: Autoanswer, Alternate Voice/Data, Diagnostics, Fallback
Distribution Method: OEM, Third-party
Price: $365
Number Installed to Date: 500 - 1,000
Date First Installed: May 1982

TEK-COM, INC.
TC5001
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps
Interface: RS-232C, CCITT V.24, CCITT V.28
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-in
Features: Diagnostics

TELESYTE TECHNOLOGIES, INC.
72D, VT-100 COMPATIBLE SMI
Modem Class: Line Driver
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 14,400 bps
Interface: RS-232C
Bell-Compatible: 43401
Transmission Medium: Metallic Pairs
Diagnostics: No
Features: Reverse Channel, Switchable Data Rates, DEC VT-100 Compatible
Distribution Method: Third-party
Price: $130
Number Installed to Date: Under 100
Date First Installed: June 1983
(See Vendor Profile Page V-35)

TELESYTE TECHNOLOGIES, INC.
74A SHORT-HAUL MODEM WITH HANDSHAKE
Modem Class: Line Driver
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 14,400 bps
Interface: RS-232C
Bell-Compatible: 43401
Transmission Medium: Metallic Pairs
Diagnostics: No
Features: Reverse Channel, Switchable Data Rates, Bidirectional Control
Distribution Method: OEM
Price: $185
Number Installed to Date: 100 - 500
Date First Installed: January 1983

TELESYTE TECHNOLOGIES, INC.
75 DUAL SHORT-HAUL MODEM WITH HANDSHAKE
Modem Class: Line Driver
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 14,400 bps
Bell-Compatible: 43401
Transmission Medium: Metallic Pairs
Diagnostics: Yes; Built-in
Features: Reverse Channel, Diagnostics, Fallback, Switchable Data Rates, Bidirectional Control
Distribution Method: End user
Price: $225
Number Installed to Date: Under 100
Date First Installed: January 1984

TELESYTE TECHNOLOGIES, INC.
71
Modem Class: Short-Haul
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 14,400 bps
Interface: RS-232C
Bell-Compatible: 41409
Transmission Medium: Metallic Pairs
Diagnostics: No
Features: Reverse Channel, Switchable Data Rates
Distribution Method: End user
Number Installed to Date: 1,000 - 5,000
Date First Installed: February 1982

TELESYTE TECHNOLOGIES, INC.
72
Modem Class: Short-Haul
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 14,400 bps
Interface: RS-232C
Bell-Compatible: 43401
Transmission Medium: Metallic Pairs
Diagnostics: No
Features: Reverse Channel, Switchable Data Rates, DTE/DCE Selectable
Distribution Method: Third-party
Price: $125
Number Installed to Date: 1,000 - 5,000
Date First Installed: February 1982

TELESYTE TECHNOLOGIES, INC.
73 REMOTELY CONTROLLED SMI
Modem Class: Short-Haul
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 14,400 bps
Interface: RS-232C
Bell-Compatible: 43401
Transmission Medium: Metallic Pairs
Features: Reverse Channel, Switchable Data Rates, Host Powered
Distribution Method: End user
Number Installed to Date: Under 100
Date First Installed: November 1982

TELESYTE TECHNOLOGIES, INC.
75 DUAL SHORT-HAUL MODEM
Modem Class: Short-Haul
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 14,400 bps

Modems

Bell-Compatible: 43401
Transmission Medium: Metallic Pairs
Diagnostics: Yes; Built-in
Features: Reverse Channel, Diagnostics, Fallback, Switchable Data Rates
Distribution Method: End user
Price: $165
Number Installed to Date: 100 - 500
Date First Installed: October 1982

TELEPROCESSING PRODUCTS, INC.
TP-569
Modem Class: Digital (DSU)
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex, Full-Duplex, Simplex
Transmission Rate: Synchronous - 2,400 bps, 4,800 bps, 9,600 bps, 14,400 bps
Interface: RS-232C
Transmission Medium: Digital Termination
Diagnostics: Yes; Built-in
Features: Diagnostics, Multiport, Fallback, Switchable Data Rates
Distribution Method: End user
Price: $495 to $650
Number Installed to Date: 500 - 1,000
Date First Installed: June 1983
(See Vendor Profile Page V-30)

TELEPROCESSING PRODUCTS, INC.
TP-561
Modem Class: Digital
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex, Full-Duplex, Simplex
Transmission Rate: Synchronous - 2,400 bps, 4,800 bps, 9,600 bps
Interface: RS-232C
Transmission Medium: Digital Termination
Diagnostics: Yes; Built-in
Features: Autoequalizer, Diagnostics, Multiport, Fallback, Switchable Data Rates
Distribution Method: End user
Price: $665 to $1,025
Number Installed to Date: Under 100
Date First Installed: January 1984

TELEPROCESSING PRODUCTS, INC.
TP-596
Modem Class: Digital
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex, Full-Duplex, Simplex
Transmission Rate: Synchronous - 14,400 bps, 56,000 bps
Interface: V.35
Transmission Medium: Digital Termination
Diagnostics: Yes; Built-in
Features: Diagnostics, Multiport, Fallback, Switchable Data Rates
Distribution Method: End user
Price: $585 to $750
Number Installed to Date: 100 - 600
Date First Installed: August 1983

TELEPROCESSING PRODUCTS, INC.
TP-567
Modem Class: Digital
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex, Full-Duplex, Simplex
Transmission Rate: Synchronous - 14,400 bps, 56,000 bps
Interface: V.35
Transmission Medium: Digital Termination
Diagnostics: Yes, Built-in
Features: Autoequalizer, Diagnostics, Fallback, Switchable Data Rates
Distribution Method: End user
Price: $890 to $1,095
Number Installed to Date: Under 100
Date First Installed: January 1984

TELEPROCESSING PRODUCTS, INC.
TP-232
Modem Class: Modem Eliminator
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Half-Duplex, Full-Duplex, Simplex
Transmission Rate: Asynchronous/ Synchronous - 2,400 bps, 4,800 bps, 9,600 bps, 14,400 bps
Interface: RS-232C
Transmission Medium: Twisted-Pair
Diagnostics: Yes; Built-in
Features: Autodial, Autoanswer, Diagnostics, Switchable Data Rates
Distribution Method: End user
Price: $395
Number Installed to Date: 500 - 1,000
Date First Installed: September 1976

TELEPROCESSING PRODUCTS, INC.
TP-569
Modem Class: Channel Service Unit
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex, Full-Duplex, Simplex
Transmission Rate: Synchronous - 2,400 bps, 4,800 bps, 9,600 bps
Transmission Medium: Digital Termination
Diagnostics: Yes; Built-in
Features: Autoequalizer, Diagnostics, Switchable Data Rates
Distribution Method: End user
Price: $415 to $540
Number Installed to Date: Under 100
Date First Installed: November 1983

TELEPROCESSING PRODUCTS, INC.
TP-561
Modem Class: Channel Service Unit
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex, Full-Duplex, Simplex
Transmission Rate: Synchronous - 14,400 bps, 56,000 bps
Transmission Medium: Digital Termination
Diagnostics: Yes; Built-in
Features: Autoequalizer, Diagnostics, Switchable Data Rates
Distribution Method: End user
Price: $625 to $830
Number Installed to Date: Under 100
Date First Installed: December 1983

TELLABS, INC.
3019
Modem Class: Line Driver
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 600 bps, 1,200 bps, 2,400 bps, 4,800 bps, 9,600 bps
Interface: RS-232C, RJ11
Transmission Medium: Voice-grade Lines
Diagnostics: No
Distribution Method: End user
Price: $100
Number Installed to Date: Under 100
Date First Installed: March 1983
(See Vendor Profile Page V-30)

TELLABS, INC.
319 DATAVOICE SYSTEM
Modem Class: Simultaneous Data/ Voice
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps
Interface: RS-232C, RJ11
Transmission Medium: Voice-grade Lines
Diagnostics: No
Features: Simultaneous Data/Voice
Distribution Method: End user, Third-party
Price: $450 - $500
Number Installed to Date: Under 500
Date First Installed: 1982

TELMAG, INC.
LDD-1
Modem Class: Line Driver
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps, 14,400 bps
Interface: RS-232C
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-in
Features: Diagnostics
Distribution Method: End user
Price: $150
Number Installed to Date: Under 100
Date First Installed: June 1981
(See Vendor Profile Page V-30)

TELMAG, INC.
SLD-1
Modem Class: Line Driver
Transmission Technique: Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Synchronous - 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps, 14,400 bps
Interface: RS-232C
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-in
Features: Diagnostics
Distribution Method: End user, Price: $450
Number Installed to Date: Under 100
Date First Installed: 1983

TELTONE CORP.
TELEPORT 202
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps, 600 bps, 1,200 bps, 2,400 bps, 4,800 bps, 9,600 bps
Interface: RS-232C, CCITT V.24
Bell-Compatible: 103
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-in
Features: Autodial, Autoequalizer, Autoanswer, Diagnostics, Clock Calendar, Switchable Data Rates, Touch-Tone to Ascii
Distribution Method: OEM
Price: $399
Date First Installed: December 1983
(See Vendor Profile Page V-30)

TIMEPLEX, INC.
202 C/D
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous - 1,800 bps
Interface: RS-232C
Bell-Compatible: 202
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-in
Distribution Method: End user
Price: $325
(See Vendor Profile Page V-31)

TIMEPLEX, INC.
AIM SERIES
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Synchronous - 2,400 bps, 4,800 bps, 9,600 bps
Interface: RS-232C, RS-449, CCITT V.26, CCITT V.27, CCITT V.29
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-in
Features: Autoequalizer, Diagnostics, Fallback, Switchable Data Rates
Distribution Method: End user
Price: $1,080 to $2,825

TIMEPLEX, INC.
R168
Modem Class: Long-Haul

Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous - 300 bps
Interface: RS-232C, MIL 188C
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes, Built-in
Features: Autodial, Autoanswer, Diagnostics
Distribution Method: End user
Price: $315

TIMEPLEX, INC.
R103 C/D
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous - 300 bps
Interface: RS-232C, MIL 188C
Bell-Compatible: 103, 113, 108
Transmission Medium: Voice-Grade
Diagnostics: Yes; Built-in
Features: Diagnostics
Distribution Method: End user
Price: $255 to $335

TIMEPLEX, INC.
R208 C/D
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 1,200 bps
Interface: RS-232C, MIL 188C
Bell-Compatible: 202
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-in
Features: Reverse Channel, Diagnostics
Distribution Method: End user
Price: $360

TIMEPLEX, INC.
V.29 PLUS
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Synchronous - 9,600 bps
Interface: RS-232C, CCITT V.29
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Add-on
Features: Autoequalizer, Diagnostics, Multiport, Fallback, Switchable Data Rates
Distribution Method: End user
Price: $4,100 to $4,600
Date First Installed: January 1983

TIMEPLEX, INC.
SLDM
Modem Class: Short-Haul
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Synchronous - 14,400 bps
Interface: RS-232C
Bell-Compatible: 43401
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-in
Features: Diagnostics, Switchable Data Rates
Distribution Method: End user
Price: $850

TRW CORP.
OPERATOR 103
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous - 300 bps
Interface: RS-232C
Bell-Compatible: 103
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-in
Features: Autodial, Autoanswer, Reverse Channel
Distribution Method: End user, OEM, Third-party
Price: $189
Date First Installed: June 1983
(See Vendor Profile Page V-31)

TRW CORP.
TNW-100
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous - 300 bps
Interface: IEEE-488
Bell-Compatible: 103
Diagnostics: No
Features: Autodial, Autoanswer, Reverse Channel
Distribution Method: End user, OEM, Third-party
Price: $449
Date First Installed: January 1978

TRANSEND CORP.
MODEM CARD AMC-300
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 300 bps
Bell-Compatible: 103
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-in
Features: Autodial, Autoanswer, Alternate Voice/Data, Diagnostics
Distribution Method: Third-party
Price: $325
Number Installed to Date: 100 - 500
Date First Installed: January 1983
(See Vendor Profile Page V-31)

TRANSEND CORP.
PC MODEM CARD 300
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 300 bps
Bell-Compatible: 103
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-in
Features: Autodial, Autoanswer, Alternate Voice/Data, Diagnostics
Distribution Method: Third-party
Price: $349
Number Installed to Date: 100 - 500

TRANSEND CORP.
PC MODEM CARD 1200
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 300 bps
Bell-Compatible: 212
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-in
Features: Autodial, Autoanswer, Alternate Voice/Data, Diagnostics, Switchable Data Rates
Distribution Method: Third-party
Price: $549
Number Installed to Date: 100 - 500
Date First Installed: October 1983

TRANSEND CORP.
TRANS MODEM 1200
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 300 bps, 1,200 bps
Interface: RS-232C
Bell-Compatible: 212
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes, Built-in
Features: Autodial, Autoanswer, Alternate Voice/Data, Diagnostics, Switchable Data Rates
Distribution Method: Third-party
Price: $695
Number Installed to Date: 100 - 500
Date First Installed: February 1983

TRI-DATA
OZ 225
Modem Class: Long Haul
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous - 300 bps, 1,200 bps
Interface: RS-232C
Bell-Compatible: 212
Transmission Medium: Voice-Grade Lines
Features: Autodial, Autoanswer
Price: $1,375
Date First Installed: September 1982
(See Vendor Profile Page V-31)

TRI-DATA
OZ GUARDIAN
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps, 1,200 bps
Interface: RS-232C
Bell-Compatible: 212
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-in
Features: Autodial, Autoequalizer, Autoanswer, Diagnostics, Fallback, Switchable Data Rates, Security Coding
Distribution Method: Third-party
Price: $750
Number Installed to Date: 100 - 900
Date First Installed: September 1983

TRT DATA PRODUCTS
202
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous - 1,200 bps
Interface: RS-232C
Bell-Compatible: 201
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-in
Features: Autoequalizer, Autoanswer, Alternate Voice/Data, Diagnostics
Distribution Method: End user, OEM
Price: $175 to $200
Number Installed to Date: 100 - 500
(See Vendor Profile Page V-31)

TRT DATA PRODUCTS
212
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 300 bps, 1,200 bps
Interface: RS-232C
Bell-Compatible: 212
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-in
Features: Autoequalizer, Autoanswer, Alternate Voice/Data, Reverse Channel, Diagnostics, Switchable Data Rates
Distribution Method: End user, OEM
Price: $250
Number Installed to Date: Under 100
Date First Installed: June 1983

TUCK ELECTRONICS, INC.
MODEC 1648
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous - 300 bps
Interface: RS-232C
Bell-Compatible: 103
Transmission Medium: Voice-Grade Lines
Distribution Method: End user
Price: $242
Date First Installed: August 1974
(See Vendor Profile Page V-32)

TUCK ELECTRONICS, INC.
MODEL 1663
Modem Class: Long-Haul

Modems

Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous - 1,200 bps
Interface: RS-232C
Bell-Compatible: 202
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-In
Features: Diagnostics
Distribution Method: End user
Price: $275
Date First Installed: March 1981

TYMSHARE, INC.
MODEL 912 MODEM
Modem Class: Long-Haul
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous/ Synchronous - 300 bps, 1,200 bps
Interface: RS-232C
Bell-Compatible: 212
Transmission Medium: Voice-Grade Lines
Features: Autorenewer, Diagnostics
Price: $695
Date First Installed: 1980
(See Vendor Profile Page V-32)

UNGERMANN-BASS, INC.
CATV-MODEM
Modem Class: Radio Frequency
Transmission Technique: Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Synchronous - 14,400 bps
Interface: 1510 D-Type Connect
Transmission Medium: Wide-Band Lines
Diagnostics: No
Distribution Method: End user
Price: $750 to $850
Number Installed to Date: Under 100
Date First Installed: April 1982
(See Vendor Profile Page V-32)

UNGERMANN-BASS, INC.
NETWORK MODEM 640
Modem Class: Radio Frequency
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Full-Duplex, Simplex
Transmission Rate: Asynchronous/ Synchronous - 19,200 bps
Interface: RS-232C, CCITT V.35
Transmission Medium: Wide-Band Lines
Diagnostics: No
Features: Diagnostics, Switchable Data Rates
Distribution Method: End user
Price: $995
Number Installed to Date: 5,000 - 10,000
Date First Installed: February 1980

UNGERMANN-BASS, INC.
NETWORK MODEM 978
Modem Class: Radio Frequency (RF)
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Full-Duplex, Simplex
Transmission Rate: Asynchronous/ Synchronous - 14,400 bps
Interface: RS-232C
Transmission Medium: Wide-Band Lines
Diagnostics: No
Features: Diagnostics, Switchable Data Rates
Distribution Method: End user
Price: $1,980
Number Installed to Date: 5,000 - 10,000
Date First Installed: June 1976

UNIVERSAL DATA SYSTEMS, INC.
103 LP O/A
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps
Interface: RS-232C, CCITT V.24
Bell-Compatible: 103, 113
Transmission Medium: Voice-Grade Lines
Features: Alternate Voice/Data, Telco Line Powered
Distribution Method: Third-party
Price: $145
Date First Installed: 1978
(See Vendor Profile Page V-32)

UNIVERSAL DATA SYSTEMS, INC.
103J
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps
Interface: RS-232C, CCITT V.24
Bell-Compatible: 103, 113
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-In
Features: Autorenewer, Alternate Voice/Data, Diagnostics
Distribution Method: Third-party
Price: $425
Date First Installed: 1982

UNIVERSAL DATA SYSTEMS, INC.
103JLP
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps
Interface: RS-232C, CCITT V.24
Bell-Compatible: 103, 113
Transmission Medium: Voice-Grade Lines
Features: Autorenewer, Alternate Voice/Data, Telco Line Powered
Distribution Method: Third-party
Price: $195
Date First Installed: 1978

UNIVERSAL DATA SYSTEMS, INC.
108
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps
Interface: RS-232C, CCITT V.24
Bell-Compatible: 103
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-In
Features: Alternate Voice/Data, Diagnostics, Multidrop
Distribution Method: Third-party
Price: $295
Date First Installed: 1983

UNIVERSAL DATA SYSTEMS, INC.
201B
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Synchronous - 2,400 bps
Interface: RS-232C, CCITT V.24
Bell-Compatible: 201
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-In
Features: Diagnostics, Antistreaming
Distribution Method: Third-party
Price: $995
Date First Installed: 1981

UNIVERSAL DATA SYSTEMS, INC.
201C
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Synchronous - 2,400 bps
Interface: RS-232C, CCITT V.24
Bell-Compatible: 201
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-In
Features: Autorenewer, Alternate Voice/Data, Diagnostics, Test Pattern Generator
Distribution Method: Third-party
Price: $775
Date First Installed: September 1981

UNIVERSAL DATA SYSTEMS, INC.
203LP
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps, 600 bps, 1,200 bps
Interface: RS-232C, CCITT V.24
Bell-Compatible: 202
Transmission Medium: Voice-Grade Lines
Features: Alternate Voice/Data, Telco Line Powered
Distribution Method: Third-party
Price: $195
Date First Installed: September 1981

UNIVERSAL DATA SYSTEMS, INC.
2025
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps, 600 bps, 1,200 bps
Interface: RS-232C, CCITT V.24
Bell-Compatible: 202
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-In
Features: Autorenewer, Alternate Voice/Data, Diagnostics
Distribution Method: Third-party
Price: $475
Date First Installed: 1981

UNIVERSAL DATA SYSTEMS, INC.
2025/96
Modem Class: Long-Haul
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps, 600 bps; Asynchronous/Synchronous - 1,200 bps
Interface: RS-232C, CCITT V.24
Bell-Compatible: 202
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-In
Features: Autorenewer, Alternate Voice/Data, Diagnostics, Test Pattern Generator
Distribution Method: Third-party
Price: $550
Date First Installed: 1981

UNIVERSAL DATA SYSTEMS, INC.
2025LP
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps, 600 bps
Interface: RS-232C, CCITT V.24
Bell-Compatible: 202
Transmission Medium: Voice-Grade Lines
Features: Autorenewer, Alternate Voice/Data
Distribution Method: Third-party
Price: $245
Date First Installed: 1982

UNIVERSAL DATA SYSTEMS, INC.
202T
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps
Interface: RS-232C, CCITT V.24
Bell-Compatible: 202
Transmission Medium: Voice-Grade

Diagnostics: Yes; Built-In
Features: Alternate Voice/Data, Diagnostics, Antistreaming
Distribution Method: Third-party
Price: $425
Date First Installed: 1982

UNIVERSAL DATA SYSTEMS, INC.
300A/B
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Synchronous - 4,800 bps
Interface: RS-232C, CCITT V.24
Bell-Compatible: 208
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-In
Features: Autoanswer, Alternate Voice/Data, Diagnostics, Antistreaming
Distribution Method: Third-party
Price: $1,750
Date First Installed: 1981

UNIVERSAL DATA SYSTEMS, INC.
212A
Modem Class: Long-Haul
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps, 600 bps; Asynchronous/Synchronous - 1,200 bps
Interface: RS-232C, CCITT V.24
Bell-Compatible: 103, 113, 212
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-In
Features: Autoanswer, Alternate Voice/Data, Diagnostics, Switchable Data Rates
Distribution Method: Third-party
Price: $595
Date First Installed: 1982

UNIVERSAL DATA SYSTEMS, INC.
212A/D
Modem Class: Long-Haul
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps, 600 bps; Asynchronous/Synchronous - 1,200 bps
Interface: RS-232C, CCITT V.24
Bell-Compatible: 103, 113, 212
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-In
Features: Autodial, Autoanswer, Alternate Voice/Data, Switchable Data Rates, Phone Number Memory
Distribution Method: Third-party
Price: $845
Date First Installed: 1983

UNIVERSAL DATA SYSTEMS, INC.
212LP
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 1,200 bps
Interface: RS-232C, CCITT V.24
Bell-Compatible: 212
Transmission Medium: Voice-Grade Lines
Diagnostics: No
Features: Alternate Voice/Data, Telco Line Powered
Distribution Method: Third-party
Price: $445
Date First Installed: 1982

UNIVERSAL DATA SYSTEMS, INC.
9600
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Synchronous - 4,800 bps, 9,600 bps; Asynchronous/Synchronous - 7,200 bps
Interface: RS-232C, CCITT V.24
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-In
Features: Autoequalizer, Diagnostics, 100 msec Train Time
Distribution Method: Third-party
Price: $2,650
Date First Installed: 1983

UNIVERSAL DATA SYSTEMS, INC.
9600A/B
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Synchronous - 4,800 bps, 9,600 bps, Asynchronous/Synchronous - 7,200 bps
Interface: RS-232C, CCITT V.24
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-In
Features: Autoequalizer, Autoanswer, Alternate Voice/Data, Diagnostics, Fallback, Switchable Data Rates, Antistreaming
Distribution Method: Third-party
Price: $2,650
Date First Installed: 1982

U. S. ROBOTICS, INC.
IBM PC MODEM
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 300 bps, 1,200 bps
Interface: Plug-In Board to IBM PC
Bell-Compatible: 212
Transmission Medium: Voice-Grade Lines
Features: Autodial, Autoequalizer, Autoanswer, Alternate Voice/Data, Diagnostics
Distribution Method: End user, OEM
Price: $448
(See Vendor Profile Page V-32)

U. S. ROBOTICS, INC.
IBM PC 24
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 300 bps, 1,200 bps
Interface: Plug-In Board to IBM PC
Bell-Compatible: 212
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-In
Features: Autodial, Autoequalizer, Autoanswer, Alternate Voice/Data, Diagnostics, Clock Calender, Fallback, Parallel Port
Distribution Method: End user, OEM
Price: $669

U. S. ROBOTICS, INC.
IBM PC MODEM 300
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 600 bps, 1,200 bps
Interface: RS-232C, Plug-In Board to IBM PC
Bell-Compatible: 212
Transmission Medium: Voice-Grade Lines
Diagnostics: No
Features: Autodial, Autoequalizer, Autoanswer, Alternate Voice/Data, Diagnostics, Clock Calender, Fallback, Switchable Data Rates, Parallel Port
Distribution Method: End user, OEM
Price: $1,149

U. S. ROBOTICS, INC.
OEM 4
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 300 bps, 1,200 bps
Interface: PPI.
Bell-Compatible: 212
Transmission Medium: Voice-Grade Lines
Diagnostics: No
Features: Autodial, Autoequalizer, Autoanswer, Alternate Voice/Data, Fallback
Distribution Method: OEM
Price: $300

U. S. ROBOTICS, INC.
PASSWORD
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 300 bps, 1,200 bps
Interface: RS-232C
Bell-Compatible: 212
Transmission Medium: Voice-Grade Lines
Diagnostics: No
Features: Autodial, Autoequalizer, Autoanswer, Alternate Voice/Data, Diagnostics, Fallback, Switchable Data Rates
Distribution Method: End user, OEM
Price: $448
Number Installed to Date: 5,000 - 10,000
Date First Installed: May 1982

U. S. ROBOTICS, INC.
S100 BUS MODEM
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 600 bps, 1,200 bps
Interface: RS-232C
Bell-Compatible: 212
Transmission Medium: Voice-Grade Lines
Diagnostics: No
Features: Autodial, Autoequalizer, Autoanswer, Alternate Voice/Data, Fallback, Switchable Data Rates
Distribution Method: End user, OEM
Price: $449

VEN-TEL, INC.
ALD SERIES
Modem Class: Line Driver
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 600 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps
Interface: RS-232C
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-In
Features: Diagnostics, Switchable Data Rates
Distribution Method: Third-party
Price: $205 to $320
Date First Installed: June 1977
(See Vendor Profile Page V-32)

VEN-TEL, INC.
SLD-SERIES
Modem Class: Line Driver
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Synchronous - 110 bps, 300 bps, 600 bps, 1,200 bps, 1,200 bps, 2,400 bps, 4,800 bps, 9,600 bps, 14,400 bps
Interface: RS-232C
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-In
Features: Diagnostics, Switchable Data Rates
Distribution Method: Third-party
Price: $360 to $450
Date First Installed: January 1978

VEN-TEL, INC.
212 SERIES
Modem Class: Long-Haul
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous/Synchronous - 300 bps, 1,200 bps
Interface: RS-232C
Bell-Compatible: 212
Transmission Medium: Voice-Grade Lines

Modems

Diagnostics: Yes; Built-In
Features: Autodial, Autoanswer, Diagnostics, Switchable Data Rates
Distribution Method: Third-party
Price: $425 to $675
Number Installed to Date: 5,000 - 10,000
Date First Installed: 1979

VEN-TEL, INC.
1200 - PLUS
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 300 bps, 1,200 bps
Bell-Compatible: 212
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-In
Features: Autodial, Autoanswer, Diagnostics, Switchable Data Rates
Distribution Method: Third-party
Price: $499
Date First Installed: December 1983

VEN-TEL, INC.
MD 103-1/2E
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps
Interface: RS-232C
Bell-Compatible: 103
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-In
Features: Diagnostics, Switchable Data Rates
Distribution Method: Third-party
Price: $245 to $315
Date First Installed: 1982

VEN-TEL, INC.
MD 103J SERIES
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps
Interface: RS-232C
Bell-Compatible: 103
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-In
Features: Autodial, Autoanswer, Diagnostics, Switchable Data Rates
Distribution Method: Third-party
Price: $345 to $415
Date First Installed: September 1982

VEN-TEL, INC.
MD 113 SERIES
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps
Interface: RS-232C
Bell-Compatible: 103
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-In
Features: Autoanswer, Diagnostics, Switchable Data Rates
Distribution Method: Third-party
Price: $245 to $315
Date First Installed: 1982

VEN-TEL, INC.
MD 201-1
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex
Transmission Rate: Synchronous - 2,400 bps
Interface: RS-232C
Bell-Compatible: 201
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-In
Features: Autoanswer, Diagnostics
Distribution Method: Third-party
Price: $730 to $800
Date First Installed: January 1979

VEN-TEL, INC.
MD 201-3/4E
Modem Class: Long-Haul
Transmission Technique: Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Synchronous - 2,400 bps
Interface: RS-232C
Bell-Compatible: 201
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-In
Features: Diagnostics
Distribution Method: Third-party
Price: $605 to $675
Date First Installed: January 1979

VEN-TEL, INC.
MD 202-1/2E
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps, 600 bps, 1,200 bps
Interface: RS-232C
Bell-Compatible: 202
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-In
Features: Autoanswer, Diagnostics, Switchable Data Rates
Distribution Method: Third-party
Price: $310 to $380

VEN-TEL, INC.
MD 202-5/6E
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps
Interface: RS-232C
Bell-Compatible: 202
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-In
Features: Diagnostics, Switchable Data Rates
Distribution Method: Third-party
Price: $280 to $350
Date First Installed: January 1979

VEN-TEL, INC.
PCM-H150P
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 300 bps, 1,200 bps
Interface: HP150
Bell-Compatible: 212
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-In
Features: Autodial, Autoanswer, Diagnostics, Switchable Data Rates
Distribution Method: Third-party
Price: $425
Date First Installed: December 1983

VEN-TEL, INC.
PCM-XT
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 300 bps, 1,200 bps
Interface: IBM PC
Bell-Compatible: 212
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-In
Features: Autodial, Autoanswer, Diagnostics, Switchable Data Rates
Distribution Method: Third-party
Price: $549
Date First Installed: December 1983

VEN-TEL, INC.
PCM-1202
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 300 bps, 1,200 bps
Interface: IBM PC
Bell-Compatible: 212
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-In
Features: Autodial, Autoanswer, Diagnostics, Switchable Data Rates
Distribution Method: Third-party
Price: $499
Date First Installed: December 1983

VERSTRON, INC.
POM-7
Modem Class: Fiber-Optic
Transmission Technique: Asynchronous, Synchronous, Isochronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous/Synchronous - 2,400 bps, 4,800 bps, 9,300 bps, 14,400 bps; Synchronous - 38.4K bps
Interface: RS-232C, MIL 188C
Transmission Medium: Fiber Optics
Price: $750
Date First Installed: 1982
(See Vendor Profile Page V-32)

VISIONARY ELECTRONICS, INC.
VISIONARY 100
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous - 300 bps
Interface: RS-232C
Bell-Compatible: 103
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-In
Features: Autodial, Autoanswer, Reverse Channel, Multiport, Clock Calendar
Distribution Method: End user, OEM, Third-party
Price: $595
Number Installed to Date: Under 100
Date First Installed: November 1982
(See Vendor Profile Page V-32)

VISIONARY ELECTRONICS, INC.
VISIONARY 1200
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous - 300 bps, 1,200 bps
Interface: RS-232C
Bell-Compatible: 212
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-In
Features: Autodial, Autoanswer, Reverse Channel, Diagnostics, Multiport, Clock Calendar, Switchable Data Rates
Distribution Method: End user, OEM, Third-party
Price: $795
Date First Installed: November 1983

WANG LABORATORIES, INC.
CATV MODEM
Modem Class: Long-Haul
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous/Synchronous - 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps
Interface: RS-232C
Transmission Medium: Voice-Grade Lines
Diagnostics: No
Distribution Method: End user
Number Installed to Date: Under 100
Date First Installed: April 1983
(See Vendor Profile Page V-32)

WANG LABORATORIES, INC.
WA 3461 MODEM
Modem Class: Long-Haul
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps, Asynchronous/Synchronous - 1,200 bps

Interface: RS-232C, CCITT V.24
Bell-Compatible: 103, 212
Transmission Medium: Voice-Grade Lines
Diagnostics: No
Features: Autodial, Autoanswer, Diagnostics, Switchable Data Rates
Distribution Method: End user
Price: $1,050
Number Installed to Date: 100 - 500
Date First Installed: June 1981

WESTERN DATACOM
212 AUTODIAL
Modem Class: Long-Haul
Transmission Technique: Asynchronous, Synchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous/Synchronous - 1,200 bps; Asynchronous - Up to 300 bps
Interface: RS-232C
Bell-Compatible: 212
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-In
Features: Autodial, Autoanswer, Alternate Voice/Data, Reverse Channel, Diagnostics, Fallback, Switchable Data Rates
Distribution Method: End user, Third-party
Price: $625
Number Installed to Date: 200
Date First Installed: March 1984
(See Vendor Profile Page V-33)

WESTERN DATACOM
WORLDCOM 208
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous - 300 bps, 1,200 bps
Interface: RS-232C
Bell-Compatible: 103, 202
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-In
Features: Autodial, Autoanswer, Alternate Voice/Data, Reverse Channel, Diagnostics, Fallback, Switchable Data Rates
Distribution Method: Third-party
Price: $595
Number Installed to Date: 10
Date First Installed: September 1983

WESTERN TELECOMPUTING CORP.
103 MODEM #607
Modem Class: Line Driver
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 300 bps
Interface: RS-232C
Bell-Compatible: 103
Transmission Medium: Voice-Grade Lines, Narrow-Band Lines, Radio Links
Diagnostics: Yes; Add-on
Features: Autodial
Distribution Method: End user
Price: $390
Number Installed to Date: Under 100
Date First Installed: September 1982
(See Vendor Profile Page V-33)

WESTERN TELECOMPUTING CORP.
103/12 MODEM #606
Modem Class: Line Driver
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 300 bps
Interface: RS-232C
Bell-Compatible: 103
Transmission Medium: Voice-Grade Lines, Narrow-Band Lines, Radio Links
Diagnostics: Yes; Add-on
Features: Autodial
Distribution Method: End user
Price: $625
Number Installed to Date: Under 100
Date First Installed: January 1982

WESTERN TELECOMPUTING CORP.
SATELLITE MODEM #608
Modem Class: Line Driver
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 300 bps
Interface: RS-232C
Bell-Compatible: 103
Transmission Medium: Voice-Grade Lines, Narrow-Band Lines, Radio Links
Diagnostics: Yes; Add-on
Features: Autodial
Distribution Method: End user
Price: $275
Number Installed to Date: Under 100
Date First Installed: January 1982

WOLFDATA, INC.
WD-212A
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Full-Duplex
Transmission Rate: Asynchronous - 300 bps, 1,200 bps
Interface: RS-232C
Bell-Compatible: 212
Transmission Medium: Voice-Grade Lines
Diagnostics: Yes; Built-In
Features: Autodial, Autoequalizer, Autoanswer, Diagnostics, Switchable Data Rates
Distribution Method: OEM
Number Installed to Date: 1,000 - 5,000
Date First Installed: March 1982
(See Vendor Profile Page V-33)

ZOOM TELEPHONICS, INC.
NETWORKER
Modem Class: Long-Haul
Transmission Technique: Asynchronous
Transmission Mode: Half-Duplex, Full-Duplex
Transmission Rate: Asynchronous - 110 bps, 300 bps
Interface: Apple II
Bell-Compatible: 103
Transmission Medium: Voice-Grade Lines
Diagnostics: No
Features: Alternate Voice/Data
Distribution Method: End user
Price: $129
Date First Installed: August 1983
(See Vendor Profile Page V-33)

MULTIPLEXERS

Multiplexer Index by Class

The index to multiplexers has been grouped according to device type — concentrators, frequency-division, fiber-optic, network concentrators, statistical, time-division and wideband. The last section of the index includes all multiplexers which do not fit into any of the above categories. Within each section, products have been arranged alphabetically by vendor and include price information and the page number on which the complete product listing may be found. The actual product listings have been grouped alphabetically by vendor.

Concentrators

VENDOR	MODEL	PRICE	PAGE
Computer Systems	CS/88	$1,900 to $3,000	A-74
Integrated Design Engineering, Inc.	IDE-250BA, -250CA	$1,900 to $6,850	A-83
Multitronics	RDS-1600	$5,000	A-87
	SBR-700	$1,000	A-88
Northern Telecom	COMM-MULTIPLEXER	$2,000	A-88
Philips Electronics Instruments	FLEXPAC PAD	N/A	A-89
Tandy Corp.	COMMUNICATIONS MULTIPLEXER (71-3000)	$6,000 to $6,000	A-94

Fiber-Optic Multiplexers

VENDOR	MODEL	PRICE	PAGE
Belden Corp.	BIT-DRIVER 222-008	$1,900	A-68
Canoga Data Systems	CMX-320	$2,500	A-79
	CMX-808	$1,200	A-78
	CMX-816	$2,750	A-79
Fibronics International, Inc.	FM 614	$2,000 to $2,900	A-79
	FM 618	$3,300 to $4,900	A-78
	FM 832	$5,400 to $15,000	A-79
	FM 1608	$1,300 to $2,200	A-78
	FM 1632	$1,825 to $4,900	A-79
Maxnge, Inc.	MUX-8	N/A	A-88

Frequency-Division Multiplexers

VENDOR	MODEL	PRICE	PAGE
Black Box Catalog/Expander, Inc.	SYNCHRONOUS CHANNEL SPLITTER (SCS-2)	$355	A-68
Coherent Communications Systems Corp.	FSM-75	$7,200 to $11,400	A-72
	LINEMATE 192	$500	A-72
	SPM-84A	$475	A-72
Micom Systems, Inc.	INSTALINK460 MODEL M461	$550 to $575	A-86

Network Concentrators

VENDOR	MODEL	PRICE	PAGE
Datagram Corp.	DM600	$1,550 to $2,750	A-74
	DM1800	$2,200 to $4,900	A-74
	DM4800	$3,600 to $13,250	A-74
General Datacomm Industries, Inc.	GENNET 1201	$1,400 to $2,200	A-81
	GENNET 1202	N/A	A-81
Infotron Systems Corp.	792 NETWORK CONCENTRATOR	$4,500 to $7,900	A-82
	SM480 WITH 790NC OR 792NC	$1,200	A-83
	SM680 WITH 790NC OR 792NC	$1,200	A-83
	SUPERMUX 790	$4,900 to $7,100	A-82
Megadata Corp.	SM5/X INTERFACE-A	$1,500	A-88
	SM5/X INTERFACE-S	$1,500	A-88
Racal-Vadic	SCOTSMAN III	N/A	A-92

Multiplexer Index

VENDOR	MODEL	PRICE	PAGE
Rizon, Inc.	DCX840 NETWORK MUX	N/A	A-92
	DCX850 SWITCHING MUX	$80,000	A-93
Vadata, Inc.	PEX-1 INTELLIGENT DATA MULTIPLEXER	$3,500	A-96

Statistical Multiplexers

VENDOR	MODEL	PRICE	PAGE
Boston Data Systems	SWITCHABLE/STATISTICAL MULTIPLEXER	$1,995	A-69
Black Box Catalog/Expander, Inc.	DATA CONCENTRATOR 2	$1,050	A-69
	DATA CONCENTRATOR 2HP	$1,050	A-69
	DATA CONCENTRATOR 4	$1,400	A-69
	DATA CONCENTRATOR 4HP	$1,400	A-69
	DATA CONCENTRATOR 8	$2,200	A-69
	DATA CONCENTRATOR 8HP	$2,200	A-69
	GENERAL PURPOSE DATA CONCENTRATOR	$1,050 to $2,200	A-73
Carmetek Microelectronics	MUX-MATE 840	$695	A-73
Chung Telecommunications	TURBO MUX 2	$995	A-71
Codex Corp.	670 MULTIDROP STATISTICAL	$1,350 to $5,400	A-71
	6001 INTELLIGENT NETWORK PROCESSOR	$1,500 to $4,925	A-71
	6005 INTELLIGENT NETWORK PROCESSOR	$2,800 to $7,000	A-71
	6010 INTELLIGENT NETWORK PROCESSOR	$4,500	A-71
	6030 INTELLIGENT NETWORK PROCESSOR	$9,500	A-71
	6040 INTELLIGENT NETWORK PROCESSOR	$17,000	A-71
	6050 DISTRIBUTED COMMUNICATIONS PROCESSOR	$45,000	A-71
ComDesign, Inc.	TC-500	$1,700 to $7,800	A-76
Communication Devices, Inc.	01-09-0075	$2,000	A-73
Complex Systems, Inc.	AMUX 4/8	$1,350 to $1,950	A-73
Compro Communications, Inc.	BILINK 2AA24	$675	A-73
	BILINK 2AS192	$975	A-73
	DATA XCHANGE	$2,550 to $9,800	A-76
	ECONO SERIES 4	$1,095	A-73
	ECONO SERIES 8	$1,695	A-76
	Q-LINK 4AA24	$1,195	A-73
	Q-LINK 4AS192	$1,195	A-73
Computer Identics Corp.	RAMM-16	$4,000	A-73
	TAMM-16A	$5,000	A-76
Computer Peripheral Systems, Inc.	MARS SYSTEM MUX/CONCENTRATOR	$1,500 to $5,000	A-74
Computrol	MEGA PLEX	$5,000 to $10,180	A-74
Datagram Corp.	DM 900	$1,550 to $2,750	A-74
	DM 1800	$2,200 to $4,900	A-74
	DM 4800	$3,650 to $13,250	A-74
Datapredicts New England, Inc.	DP MUX-256	$4,842 to $8,550	A-76
	MC 3	$8,715 to $10,800	A-73
Datatel, Inc.	DCP 5000	$1,300	A-76
Datex, Inc.	DATEC DATAMUX	$835	A-76
DCA/TAC	AYARWM 205	$4,250 to $8,000	A-73
	SYSTEM 105	$1,295 to $2,850	A-76
	SYSTEM 110	$1,495 to $2,850	A-76
	SYSTEM 120	$2,450 to $8,595	A-76
	SYSTEM 125	$3,250 to $9,395	A-73
	SYSTEM 325 NETSWITCH	$12,580	A-76
	SYSTEM 335	$6,795 to $7,195	A-76
	SYSTEM 355	$9,995 to $11,295	A-73
Develcon Electronics, Inc.	DS1600	$2,000 to $5,000	A-73
	DS1800	$1,550 to $2,750	A-76
	DS4800	$3,650 to $13,250	A-77
Digital Equipment Corp.	DFM04	$2,675	A-77
	DFM08	$3,350	A-77
	DFM12	$4,075	A-77
	DFM16	$4,000	A-77
Dynatech Packet Technology, Inc.	DP 1000	$1,000 to $2,000	A-77
	MULTIPAD 25	$3,000 to $60,000	A-77
	MULTIPLEX 25	$1,500 to $50,000	A-77
Emulex Corp.	CS01-H	N/A	A-77
	CS11-F	N/A	A-77
	CS11-H	N/A	A-77
	CS11-U	N/A	A-77
	CS11-V	N/A	A-76
	CS21-F	N/A	A-73
	CS21-H	N/A	A-76
	CS21-U	N/A	A-73
	CS21-Z	N/A	A-73
	CSM11-MH	N/A	A-76
	CSM11-MU	N/A	A-73

Multiplexer Index

VENDOR	MODEL	PRICE	PAGE
Envisx Corp.	CSM21-MU	N/A	A-78
	CSM21-MZ	N/A	A-78
	CSM21-NH	N/A	A-78
Ericsson Pragmatic, Inc.	1111	$990	A-79
	1112	$1,140	A-79
	1114	$1,510	A-79
	1118	$2,150	A-79
Friedman Associates	DATAGRAM DM900	$1,550 to $2,750	A-79
	DATAGRAM DM1600	$2,800 to $5,000	A-79
	DATAGRAM DM4600	$3,800 to $13,200	A-79
	NEC STAT MUX	$35,000	A-80
Fujitsu America, Inc.	F 1951A	N/A	A-80
Gandalf Data, Inc.	PIN 9101 E	$2,650 to $5,750	A-80
	PIN 9103	$4,650 to $7,150	A-80
	PIN 9106	$825 to $1,085	A-80
GTE Network Systems, Inc.	9004 A/B	$15,000	A-81
Halcyon Communications	4001	$1,700 to $4,100	A-81
	4220	$3,900 to $8,500	A-81
Infotron Systems Corp.	SUPERMUX 360 STAT MUX	$1,375 to $1,750	A-82
	SUPERMUX 480 STAT MUX	$1,800 to $8,000	A-82
	SUPERMUX 616	$5,500	A-82
	SUPERMUX 632	$8,000	A-83
	SUPERMUX 660 STAT MUX	$3,000 to $5,200	A-83
	SUPERMUX 780 STAT MUX	$1,700	A-83
Interactive Systems/3M	MODEL 6330 STAT MUX	$3,640 to $8,150	A-83
Interbusiness Corp.	DUAL MUX A	$695	A-84
	DUAL MUX S	$695	A-84
	QUAD MUX S	$1,150	A-84
	QUAD MUX (4 CHANNEL STAT MUX)	$1,150	A-84
Interlan, Inc.	NTS-10 TERMINAL SAVER	$400	A-89
Inter-Link	LN-1000	$995 to $1,835	A-84
	LN-2000	$1,695 to $2,695	A-84
	LN-4000	$2,995 to $3,995	A-89
Micom Systems, Inc.	MICRO 200 PORT CONCENTRATOR	$2,550 to $3,250	A-86
	MICRO 500 ERROR CONTROLLER	$795	A-86
	MICRO 800/2 DATA CONCENTRATOR	$1,050 to $4,800	A-86
	MICRO 800/X25	$2,000 to $4,600	A-86
	MICRO 800/2 MULTIDROP CONCENTRATOR	$900 to $4,600	A-86
	MICRO 5000 INTELLIGENT MODEM	$1,500 to $3,400	A-86
	MICRO 8000 CONCENTRATOR MODEM	$1,650 to $7,200	A-86
Multi - Tech Systems, Inc.	MULTI-MUX	$1,295	A-87
Network Products, Inc.	BABY MUX	$1,350 to $2,300	A-88
	BABY NET	$1,450 to $2,400	A-88
Paradyne Corp.	DCX-515	$1,990 to $2,190	A-89
	DCX-625	$3,200 to $7,200	A-89
	DCX-640	$10,000 to $85,000	A-89
	DCX-850	$15,000 to $100,000	A-89
	DCX-861	$2,800 to $3,300	A-89
	DCX-871	$4,500 to $8,800	A-89
	MP-14.4 SM	$14,975	A-89
Phoenix Digital Corp	BABY KNET	$1,450 to $2,400	A-89
Prentice Corp.	SNP 1101	$695	A-90
	SNP 1102	$995	A-91
	SNP 1104	$1,295	A-91
	SNP 1208	$1,495 to $2,295	A-91
	SNP 1209	$2,095 to $2,795	A-91
Racal-Milgo, Inc.	OMNIMUX 60	N/A	A-91
	OMNIMUX 30	$1,800 to $2,900	A-91
	OMNIMUX 40	$1,900 to $2,800	A-91
	OMNIMUX 160	N/A	A-91
	OMNIMUX 320	N/A	A-91
Racal-Vadic	SCOTSMAN I	$1,850	A-92
	SCOTSMAN II	$2,650 to $4,800	A-92
Rixon, Inc.	COMMUX STATISTICAL MULTIPLEXER PLUS	N/A	A-92
	DCX815 STATISTICAL MULTIPLEXER	N/A	A-92
	DCX825 STATISTICAL MULTIPLEXER	N/A	A-92
	DCX836 STATISTICAL MULTIPLEXER	N/A	A-93
Saltec Corp.	CPX 25	$1,850 to $10,000	A-93
	ILX	$4,500 to $10,000	A-93
	MUX 25	$1,200	A-93
	NPX	$4,500 to $10,000	A-93
Teleprocessing Products, Inc.	TP-212	$850	A-93
	TP-214	$1,350	A-94
	TP-400 MULTI-DROP STAT MUX	$4,000 to $2,500	A-94
Telebit, Inc.	330A-F DATAPLEXERS	$2,400 to $11,900	A-99
Telenet Corp.	M-860	N/A	A-94
Timeplex, Inc.	NETWORKING MICROPLEXER NM86	$17,060	A-95
	NETWORKING MICROPLEXER NM144	$17,000	A-99

Multiplexer Index

VENDOR	MODEL	PRICE	PAGE
Timeplex, Inc.	QUAD SWITCHING MICROPLEXER	*$7,525*	*A-96*
	SERIES II MICROPLEXER M8	*$1,625 to $2,650*	*A-96*
	SERIES II MICROPLEXER M24	*$2,655 to $3,420*	*A-96*
	SERIES II MICROPLEXER M48	*$4,890 to $5,150*	*A-96*
	SWITCHING MICROPLEXER SM8	*$1,800 to $2,825*	*A-96*
	SWITCHING MICROPLEXER SM24	*$2,830 to $3,855*	*A-96*
	SWITCHING MICROPLEXER SM48	*$4,125 to $5,150*	*A-96*
	WIDEBAND MICROPLEXER WM48	*$8,025*	*A-96*
Western Datacom	PRISM 1003	*$975*	*A-96*
Xyplex, Inc.	XYPLEX SYSTEM	*$700*	*A-96*

Time-Division Multiplexers

VENDOR	MODEL	PRICE	PAGE
Able Computer	DH/DM	*$3,750 to $4,500*	*A-96*
	DV/16	*$8,000 to $11,000*	*A-96*
	DZ16	*$3,200 to $3,950*	*A-96*
	VMZ/32N	*$3,750 to $4,500*	*A-96*
Amdahl Corp.	2211 TDM MULTIPLEXER	*$7,500 to $50,000*	*A-96*
Bay Technical Associates, Inc.	524 AC 11	*$279 to $649*	*A-96*
	524E	*$279 to $649*	*A-96*
	528 AC 11	*$279 to $649*	*A-96*
	528E	*$279 to $649*	*A-96*
Black Box Catalog/Expander, Inc.	ASYNCHRONOUS CHANNEL SPLITTER	*$635*	*A-70*
	SYNCHRONOUS CHANNEL SPLITTER (SCS-4)	*$1,150*	*A-70*
Bo-Shervel Co., Inc.	MX-1	*$495*	*A-70*
Codex Corp.	600 605 SYNCHRONOUS MULTIPLEXORS	*$1,650 to $2,250*	*A-70*
	980 SYNCHRONOUS MULTIPLEXOR	*$4,500*	*A-70*
	8000 GROUP BAND MULTIPLEXOR	*$5,000*	*A-72*
Computer Communications Specialists, Inc.	CHANNEL COMMUNICATIONS CONCENTRATOR	*$3,695*	*A-73*
Computer Inquiry Systems, Inc.	CIS BMUX	*$300*	*A-74*
Datalink, Inc.	MODEL 925 TELEX & DATA TDM	*N/A*	*A-74*
Datotek, Inc.	DCP 6100	*$3,650*	*A-75*
DCA/TAC	T-1 SPEED TIME DIVISION MULTIPLEXOR	*$3,600 to $4,950*	*A-75*
Gandalf Data, Inc.	GLM 504	*$1,550*	*A-90*
	LINE MISER-MLX4/MLX8	*$650 to $850*	*A-90*
GenComp, Inc.	ASYNCHRONOUS MULTIPLEXER MODEL 2033	*$1,000 to $3,000*	*A-91*
	ASYNCHRONOUS MULTIPLEXER MODEL 2035	*$2,000 to $3,000*	*A-91*
	ASYNCHRONOUS MULTIPLEXER MODEL 2133	*$900*	*A-91*
	ASYNCHRONOUS MULTIPLEXER MODEL 2135	*$2,000 to $3,000*	*A-91*
General Datacomm Industries, Inc.	MEGAMUX (TDM 1257/1258)	*$6,000 to $35,000*	*A-91*
	TDM 1209 SERIES	*$995 to $1,295*	*A-91*
Infinet, Inc.	MX400	*$300*	*A-92*
	MX496	*$800*	*A-92*
	MX600	*$1,000*	*A-93*
Infotron Systems Corp.	T1 MULTIPLEXER	*$4,800*	*A-93*
	TIMELINE 180 MULTIPLEXER	*$1,700*	*A-93*
	TIMELINE 280 MULTIPLEXER	*$1,800*	*A-93*
	TIMELINE 290 MULTIPLEXER	*$1,850*	*A-93*
Interactive Systems/3M	MODEL 8600	*$1,800 to $3,080*	*A-94*
Intersil Systems, Inc.	5300	*$1,500 to $2,250*	*A-96*
ITT	D424	*$5,000 to $50,000*	*A-96*
LSI Systems, Inc.	4D7 SYSTEM	*$13,550*	*A-96*
M/A-COM Linkabit, Inc.	MX 24	*$2,700 to $5,000*	*A-96*
	MX 48	*$5,800*	*A-96*
Micom Systems, Inc.	INSTAMUX470 MDL M474 OR 478	*$695 to $1,050*	*A-96*
	INSTATRUNK480 MODEL M481	*$3,200 to $12,800*	*A-96*
	M4096/4 +	*$3,695*	*A-97*
	MICRO100 LINE MULTIPLEXER	*$4,300 to $8,400*	*A-97*
	MICRO700 MODEL M700	*N/A*	*A-97*
	MICRO750 MODEL 1 OR 2	*$2,500 to $10,000*	*A-97*
Microtronics Corp.	MZV-11/8 OCTOMUX	*$1,300*	*A-97*
Modular Computer Systems, Inc.	1907	*$75,000*	*A-97*
Network Products, Inc.	LOCAL MUX	*$850*	*A-98*
Optelecom, Inc.	MODEL 51-008	*$6,000*	*A-98*
Paradyne Corp.	DCX-T1	*$8,000 to $27,000*	*A-98*
	DCX-725	*$4,000*	*A-98*
Photo Corp.	MD-3200	*$2,740 to $4,750*	*A-98*
	MD-3206	*$975*	*A-98*
	OMX-1906	*$1,295*	*A-98*
	OMX-1616	*$2,395*	*A-98*
	OMX-5800	*$8,000 to $15,800*	*A-98*
	OMX-9600	*$3,300 to $16,000*	*A-98*
Phoenix Digital Corp	DPAC/PTX-1	*$7,000 to $12,000*	*A-99*

VENDOR	MODEL	PRICE	PAGE
Phoenix Digital Corp	DPAC-30	$5,000 to $9,000	A-96
Rimida Electronics	MODEL 1600	$380 to $1,900	A-96
	MODEL 2600	$900 to $1,440	A-96
Rixon, Inc.	DCX725 SYNCHRONOUS MULTIPLEXER	N/A	A-96
Soltec Corp.	ESPT1	$3,900 to $35,000	A-92
Tau-Tron, Inc.	INTRAPLEX TDM 150	$3,500 to $9,000	A-96
Telesis, Inc.	AMUX-1	$800	A-94
Timeplex, Inc.	LNK1-T1 FACILITIES MANAGEMENT SYSTEM	N/A	A-96
	TIMEPLEXER TIG TDM	$1,725	A-96
	TIMEPLEXER T-20 TDM	$2,050	A-96
	TIMEPLEXER T-96 TDM	$3,270	A-96
Wang Laboratories, Inc.	CMUX-2370 CABLE MULTIPLEXOR	$3,375	A-96

Wideband (T-1) Multiplexers

VENDOR	MODEL	PRICE	PAGE
Avanti Communications Corp.	ULTRAMUX	$15,750	A-96
Coastcom	D/I MUX	$6,000	A-71
Sandhill Data, Inc.	LINE MISER-T1 MUX	$3,200	A-89

Other Multiplexer Types

VENDOR	MODEL	PRICE	PAGE
Astrocom Corp.	SQUEEZIPLEXER-RACK MOUNT	$2,880	A-96
	SQUEEZIPLEXER-STAND ALONE	$1,022	A-96
Canoga Data Systems	CMX-832	$2,700 to $5,700	A-70
Interface Electronics, Inc.	SLAM	$1,900	A-96
Micom Systems, Inc.	MICRO 880 CONCENTRATOR SWITCH	$1,400	A-87
Mitel, Inc.	MITEL DATA DEMULTIPLEXER	$850	A-87
Optelecom	4481	$1,100	A-96
	5100-8	$6,200	A-96
Peripheries Corp.	T-COMM	$35,000	A-96
	VOICE STAR	$35,000	A-96
	VOICEPACK	$20,000	A-96
Storm Research Corp.	TC-2/32	$10,000	A-96
Sperry Corp.	SIXTEEN CHANNEL TERMINAL MULTIPLEXER	$2,138	A-94
Telebo, Inc.	331 XPLEXER	$2,900 to $12,900	A-94
Timeplex, Inc.	MICROPLEXER X.25 PAD	$1,750	A-96

Multiplexers

ABLE COMPUTER
DM/DM
Multiplexer Class: TDM
Input Interface: RS-232C, CCITT V.24, CCITT V.28
Transmission Mode: Full-Duplex
Input Transmission Rates:
Asynchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps, 19,200 bps
Maximum Output Lines:
Synchronous: 19
Output Transmission Mode: Full-Duplex
Features: Flow Control, Programmable
Diagnostic Features: Local
Price: $3,750 to $4,500
Date First Installed: 1981
(See Vendor Profile Page V-1)

ABLE COMPUTER
DV/16
Multiplexer Class: TDM
Maximum Input Channels:
Synchronous: 32
Asynchronous: 32
Input Transmission Rates:
Asynchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,800 bps, 7,200 bps, 19,200 bps;
Asynchronous/Synchronous - 1,200 bps; 2,400 bps, 3,600 bps, 4,800 bps, 9,600 bps
Aggregate Transmission Rate: 600 bps
Maximum Output Lines:
Synchronous: 4
Asynchronous: 4
Output Transmission Mode: Half-Duplex, Full-Duplex
Diagnostic Features: Local
Distribution Method: Third-party
Price: $8,000 to $11,000
Date First Installed: 1980

ABLE COMPUTER
DZ/16
Multiplexer Class: TDM
Input Interface: RS-232C, CCITT V.24/V.28
Maximum Input Channels:
Synchronous: 19
Transmission Mode: Full-Duplex
Input Transmission Rates:
Asynchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps
Maximum Output Lines:
Synchronous: 19
Output Transmission Mode: Full-Duplex
Features: Programmable
Diagnostic Features: Local
Distribution Method: Third-party
Price: $3,200 to $3,950
Date First Installed: 1980
Number Installed to Date: 100 - 500

ABLE COMPUTER
VMZ/32N
Multiplexer Class: TDM
Input Interface: RS-232C, CCITT V.24/V.28
Maximum Input Channels:
Synchronous: 19
Transmission Mode: Full-Duplex
Input Transmission Rates:
Asynchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps, 19,200 bps
Maximum Output Lines:
Synchronous: 19
Output Transmission Mode: Full-Duplex
Features: Flow Control, Programmable
Diagnostic Features: Local
Distribution Method: Third-party
Price: $3,750 to $4,500
Date First Installed: 1982

ABSANE CORP.
2211 TDM MULTIPLEXER
Multiplexer Class: TDM
Input Interface: RS-232C, CCITT V.24/V.28, V.35, MIL 188C, Bell 301/303
Maximum Input Channels:
Synchronous: 48
Asynchronous: 96
Transmission Mode: Full-Duplex
Input Transmission Rates:
Asynchronous - 110 bps, 1,800 bps;
Asynchronous/Synchronous - 600 bps, 800 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps, 14,400 bps, 19,200 bps, 460 8K bps
Aggregate Transmission Rate: 13,440 bps
Maximum Output Lines:
Asynchronous: 1
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates:
Synchronous - 9,600 bps, 14,400 bps, 56,000 bps, Asynchronous - T-1; Asynchronous/Synchronous - 40,860 bps, 2,048K bps
Communications Protocols: Ascii, Protocol Transparent
Features: Automatic Speed Detection (Autobaud), Downline Loading (On-Line Reconfiguration), Operational and Statistical Reports, Programmable, Network Monitor, Soft Configurability
Diagnostic Features: Remote, Local
Distribution Method: End user
Price: $7,500 to $50,000
Date First Installed: May 1983
Number Installed to Date: Under 100
(See Vendor Profile Page V-2)

ASTROCOM CORP.
SQUEEZIPLEXER-STAND ALONE
Multiplexer Class: IBM 3274 Coaxial Cable Eliminator
Input Interface: Coaxial Cable, RG-62A/U
Maximum Input Channels:
Synchronous: 8
Transmission Mode: Half-Duplex
Input Transmission Rates:
Asynchronous - 2M bps
Aggregate Transmission Rate: 20K bps
Maximum Output Lines:
Synchronous: 1
Output Transmission Mode: Half-Duplex
Output Line Transmission Rates:
Asynchronous - 2M bps
Features: Polling, Operational and Statistical Reports, Network Monitor
Diagnostic Features: Local
Distribution Method: Third-party
Price: $1,022
Date First Installed: January 1983
Number Installed to Date: 500 - 1,000
(See Vendor Profile Page V-3)

ASTROCOM CORP.
SQUEEZIPLEXER-RACK MOUNT
Multiplexer Class: IBM 3274 Coaxial Cable Eliminator
Maximum Input Channels:
Synchronous: 32
Transmission Mode: Half-Duplex
Maximum Output Lines:
Synchronous: 4
Features: Polling, Operational and Statistical Reports, Network Monitor
Diagnostic Features: Local
Distribution Method: Third-party
Price: $2,880
Date First Installed: January 1983
Number Installed to Date: 500 - 1,000

AVANTI COMMUNICATIONS CORP.
ULTRAMUX
Multiplexer Class: Wideband (T-1)
Input Interface: RS-232C, MIL 188C, V.35, RS-449, Bell 303
Maximum Input Channels:
Synchronous: 128
Asynchronous: 64
Transmission Mode: Half-Duplex, Full-Duplex
Input Transmission Rates:
Asynchronous/Synchronous - 2.5M bps
Aggregate Transmission Rate: 1M bps
Maximum Output Lines:
Asynchronous: 4
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates:
Synchronous - 56,000 bps, Asynchronous/Synchronous - 10M bps
Communications Protocols: Transparent
Features: Automatic Speed Detection (Autobaud), Data Compression, Downline Loading (On-Line Reconfiguration), Automatic Repeat Request, Port Contention; Switching, Operational and Statistical Reports, Flow Control, Programmable, Network Monitor, T-1 Capability, Dynamic Bend Width
Diagnostic Features: Remote, Local
Distribution Method: End user, OEM, Third-party
Price: $15,750
Date First Installed: March 1983
Number Installed to Date: Under 100
(See Vendor Profile Page V-3)

BACKUS DATA SYSTEMS
SWITCHABLE/STATISTICAL MULTIPLEXER
Multiplexer Class: Statistical
Input Interface: RS-232C
Maximum Input Channels:
Asynchronous: 5
Transmission Mode: Full-Duplex
Input Transmission Rates:
Synchronous - 50 bps, 75 bps, 110 bps, 600 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps
Aggregate Transmission Rate: 96 bps
Maximum Output Lines:
Synchronous: 1
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates:
Asynchronous - 9,600 bps
Communications Protocols: SDLC
Features: Switching, Operational and Statistical Reports, Programmable
Diagnostic Features: No
Distribution Method: End user
Price: $1,995
Date First Installed: September 1983
Number Installed to Date: Under 100
(See Vendor Profile Page V-3)

BAY TECHNICAL ASSOCIATES, INC.
524 AC 11
Multiplexer Class: TDM
Input Interface: RS-232C
Maximum Input Channels:
Synchronous: 4
Transmission Mode: Full-Duplex
Input Transmission Rates:
Asynchronous - 600 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps, 19,200 bps
Maximum Output Lines:
Synchronous: 1
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates:
Asynchronous - 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps, 14,400 bps
Communications Protocols: Ascii
Features: Flyback Buffering Delay, Polling, Programmable
Diagnostic Features: Local
Distribution Method: End user
Price: $279 to $649
Date First Installed: September 1982
Number Installed to Date: 5,000 - 10,000
(See Vendor Profile Page V-4)

BAY TECHNICAL ASSOCIATES, INC.
524E
Multiplexer Class: TDM
Input Interface: RS-232C
Maximum Input Channels:
Synchronous: 4
Transmission Mode: Full-Duplex
Input Transmission Rates:
Asynchronous - 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps, 19,200 bps
Maximum Output Lines:
Synchronous: 1
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates:

Asynchronous - 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps, 14,400 bps
Communications Protocols: Ascii
Features: Polling, Programmable
Diagnostic Features: Local
Distribution Method: End user
Price: $279 to $649
Date First Installed: September 1982
Number Installed to Date: 5,000 - 10,000

BAY TECHNICAL ASSOCIATES, INC.
528 AC 11
Multiplexer Class: TDM
Input Interface: RS-232C
Maximum Input Channels:
Synchronous: 9
Transmission Mode: Full-Duplex
Input Transmission Rates:
Asynchronous - 600 bps, - 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps, 19,200 bps
Maximum Output Lines:
Synchronous: 1
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates:
Asynchronous - 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps
Communications Protocols: Ascii
Features: Flyback Buffering Delay, Polling, Programmable
Diagnostic Features: Local
Distribution Method: End user
Price: $279 to $649
Date First Installed: September 1982
Number Installed to Date: 5,000 - 10,000

BAY TECHNICAL ASSOCIATES, INC.
528E
Multiplexer Class: TDM
Input Interface: RS-232C
Maximum Input Channels:
Synchronous: 9
Transmission Mode: Full-Duplex
Input Transmission Rates:
Asynchronous - 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps, 19,200 bps
Maximum Output Lines:
Synchronous: 1
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates:
Asynchronous - 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps, 14,400 bps
Communications Protocols: Ascii
Features: Polling, Programmable
Diagnostic Features: Local
Distribution Method: End user
Price: $279 to $649
Date First Installed: September 1982
Number Installed to Date: 5,000 - 10,000

BELDEN CORP.
BT-DRIVER 222-006
Multiplexer Class: Fiber-Optic
Input Interface: RS-232C
Maximum Input Channels:
Synchronous: 9
Asynchronous: 9
Transmission Mode: Full-Duplex
Input Transmission Rates:
Asynchronous/Synchronous - 1,200 bps, 2,400 bps, 4,800 bps, 9,600 bps, 19,200 bps
Aggregate Transmission Rate: 1,600 bps
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates:
Asynchronous/Synchronous - 1,200 bps, 4,800 bps
Communications Protocols: Transparent
Features: Independent Channel Loopback
Diagnostic Features: Local
Distribution Method: Third-party
Price: $1,950
Date First Installed: June 1983
Number Installed to Date: Under 100
(See Vendor Profile Page V-4)

BLACK BOX CATALOG/EXPANDOR, INC.
SYNCHRONOUS CHANNEL SPLITTER (SCS-2)
Multiplexer Class: FDM
Input Interface: RS-232C
Maximum Input Channels:
Asynchronous: 2
Transmission Mode: Full-Duplex
Input Transmission Rates:
Asynchronous/Synchronous - Up to 9,600 bps
Maximum Output Lines:
Asynchronous: 1
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates:
Asynchronous/Synchronous - Up to 9,600 bps
Features: Automatic Speed Detection (Autobaud), Data Compression, Automatic Repeat Request, Port Contention, Operational and Statistical Reports, Flow Control
Diagnostic Features: Remote, Local
Distribution Method: End user
Price: $355
Date First Installed: August 1982
Number Installed to Date: 100 - 500
(See Vendor Profile Page V-4)

BLACK BOX CATALOG/EXPANDOR, INC.
DATA CONCENTRATOR 2
Multiplexer Class: Statistical
Input Interface: RS-232C, DCE
Maximum Input Channels:
Synchronous: 2
Transmission Mode: Full-Duplex
Input Transmission Rates:
Asynchronous - 110 bps, 9,600 bps
Aggregate Transmission Rate: 192 bps
Maximum Output Lines:
Synchronous: 1
Asynchronous: 1
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates:
Asynchronous - 1,200 bps, 1,800 bps, 9,600 bps,
Asynchronous/Synchronous - As Per Modem Speed
Communications Protocols: BSC
Features: Data Compression, Downline Loading (On-Line Reconfiguration), Automatic Repeat Request, Flow Control
Diagnostic Features: Remote, Local
Price: $1,050
Date First Installed: 1978
Number Installed to Date: 10,000 - 50,000

BLACK BOX CATALOG/EXPANDOR, INC.
DATA CONCENTRATOR 2HP
Multiplexer Class: Statistical
Input Interface: RS-232C, DCE
Maximum Input Channels:
Synchronous: 2
Transmission Mode: Full-Duplex
Input Transmission Rates:
Asynchronous - 110 bps, 9,600 bps
Aggregate Transmission Rate: 192 bps
Maximum Output Lines:
Synchronous: 1
Asynchronous: 1
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates:
Asynchronous - 1,200 bps, 1,800 bps, 9,600 bps,
Asynchronous/Synchronous - As per Modem Speed
Communications Protocols: BSC-Type
Features: Data Compression, Downline Loading (On-Line Reconfiguration), Automatic Repeat Request, Flow Control
Diagnostic Features: Remote, Local
Distribution Method: End user
Price: $1,950
Date First Installed: 1978
Number Installed to Date: 10,000 - 50,000

BLACK BOX CATALOG/EXPANDOR, INC.
DATA CONCENTRATOR 4
Multiplexer Class: Statistical
Input Interface: RS-232C, DCE
Maximum Input Channels:
Synchronous: 4
Transmission Mode: Full-Duplex
Input Transmission Rates:
Asynchronous - 110 bps, 9,600 bps
Aggregate Transmission Rate: 384 bps
Maximum Output Lines:
Synchronous: 1
Asynchronous: 1
Output Line Transmission Rates:
Asynchronous - 1,200 bps, 1,800 bps, 9,600 bps;
Asynchronous/Synchronous - As per Modem Speed
Communications Protocols: BSC-Type
Features: Data Compression, Downline Loading (On-Line Reconfiguration), Automatic Repeat Request, Flow Control, Test
Diagnostic Features: Remote, Local
Distribution Method: End user,
Price: $1,400
Number Installed to Date: 10,000 - 50,000

BLACK BOX CATALOG/EXPANDOR, INC.
DATA CONCENTRATOR 4HP
Multiplexer Class: Statistical
Input Interface: RS-232C, DCE
Maximum Input Channels:
Synchronous: 4
Transmission Mode: Full-Duplex
Input Transmission Rates:
Asynchronous - 110 bps to 9,600 bps
Aggregate Transmission Rate: 384 bps
Maximum Output Lines:
Synchronous: 1
Asynchronous: 1
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates:
Asynchronous - 1,200 bps, 1,800 bps, 9,600 bps,
Asynchronous/Synchronous - As per Modem Speed
Communications Protocols: BSC-Type
Features: Data Compression, Downline Loading (On-Line Reconfiguration), Automatic Repeat Request, Flow Control, Terminal-Activated Communications Test
Diagnostic Features: Remote, Local
Distribution Method: End user
Price: $1,400
Date First Installed: 1978
Number Installed to Date: 10,000 - 50,000

BLACK BOX CATALOG/EXPANDOR, INC.
DATA CONCENTRATOR 9
Multiplexer Class: Statistical
Input Interface: RS-232C, DSC
Maximum Input Channels:
Synchronous: 9
Transmission Mode: Full-Duplex
Input Transmission Rates:
Asynchronous - 110 bps, 3,600 bps
Aggregate Transmission Rate: 768 cps
Maximum Output Lines:
Synchronous: 1
Asynchronous: 1
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates:
Asynchronous - 1,200 bps, 1,800 bps, 9,600 bps,
Asynchronous/Synchronous - As per Modem Speed
Communications Protocols: BSC-Type
Features: Data Compression, Downline Loading (On-Line Reconfiguration), Automatic Repeat Request, Flow Control, Terminal-Activated Communications Test
Diagnostic Features: Remote, Local
Price: $2,200
Date First Installed: 1978
Number Installed to Date: 10,000 - 50,000

BLACK BOX CATALOG/EXPANDOR, INC.
DATA CONCENTRATOR 9HP
Multiplexer Class: Statistical

Input Interface: RS-232C, DSC
Maximum Input Channels:
Synchronous: 8
Transmission Mode: Full-Duplex
Input Transmission Rates:
Asynchronous - 110 bps to 9,600 bps
Aggregate Transmission Rate: 768 bps
Maximum Output Lines:
Synchronous: 1
Asynchronous: 1
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates:
Asynchronous - 1,200 bps, 1,800 bps, 9,600 bps,
Asynchronous/Synchronous - As per Modem Speed
Communications Protocols: BSC-Type
Features: Data Compression, Downline Loading (On-Line Reconfiguration), Automatic Repeat Request, Flow Control and Terminal Activated Communications Test
Diagnostic Features: Remote, Local
Distribution Method: End user
Price: $2,200
Date First Installed: 1978
Number Installed to Date: 10,600 - 50,000

BLACK BOX CATALOG/EXPANDOR, INC.
GENERAL PURPOSE DATA CONCENTRATOR
Multiplexer Class: Statistical
Input Interface: RS-232C
Maximum Input Channels:
Synchronous: 9
Transmission Mode: Half-Duplex, Full-Duplex
Input Transmission Rates:
Asynchronous - 300 bps, 600 bps, 1,200 bps, 4,800 bps, 9,600 bps
Aggregate Transmission Rate: 384 bps
Maximum Output Lines:
Synchronous: 1
Asynchronous: 1
Output Transmission Mode: Half-Duplex, Full-Duplex
Output Line Transmission Rates:
Asynchronous/Synchronous - 1,200 bps, 1,800 bps, 9,600 bps,
Synchronous - 2,400 bps, 4,800 bps
Communications Protocols: Ascii, EWK/ACK (HP), XON-XOFF
Features: Automatic Speed Detection (Autobaud), Data Compression, Automatic Repeat Request, Port Contention, Operational and Statistical Reports, Flow Control, Statistical Convention Multiplexer
Diagnostic Features: Remote, Local
Distribution Method: End user
Price: $1,050 to $2,200
Date First Installed: August 1982
Number Installed to Date: 100 - 500

BLACK BOX CATALOG/EXPANDOR, INC.
ASYNCHRONOUS CHANNEL SPLITTER
Multiplexer Class: TDM
Input Interface: RS-232C
Maximum Input Channels:
Synchronous: 2
Asynchronous: 2
Transmission Mode: Full-Duplex
Input Transmission Rates:
Asynchronous - 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps 9,600 bps, 19,200 bps
Maximum Output Lines:
Synchronous: 1
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates:
Asynchronous - Up to 38,400 bps
Features: Automatic Speed Detection (Autobaud), Data Compression, Automatic Repeat Request, Port Contention, Operational and Statistical Reports, Flow Control
Diagnostic Features: Remote, Local
Distribution Method: End user
Price: $635
Date First Installed: August 1982
Number Installed to Date: 100 - 500

BLACK BOX CATALOG/EXPANDOR, INC.
SYNCHRONOUS CHANNEL SPLITTER (SCS-4)
Multiplexer Class: TDM
Input Interface: RS-232C, CCITT V.24/V.28
Maximum Input Channels:
Asynchronous: 4
Transmission Mode: Full-Duplex
Input Transmission Rates:
Synchronous - 4,800 bps
Aggregate Transmission Rate: 380 bps
Maximum Output Lines:
Asynchronous: 1
Output Transmission Mode: Half-Duplex, Full-Duplex
Output Line Transmission Rates:
Asynchronous/Synchronous - Up to 19,200 bps
Features: Automatic Speed Detection (Autobaud), Data Compression, Automatic Repeat Request, Port Contention, Operational and Statistical Reports, Flow Control
Diagnostic Features: Remote, Local
Distribution Method: End user
Price: $1,150
Date First Installed: August 1982
Number Installed to Date: Under 100

BO-SHERREL CO., INC.
MX-1
Multiplexer Class: TDM
Input Interface: RS-232C
Maximum Input Channels:
Synchronous: 9
Transmission Mode: Full-Duplex
Input Transmission Rates:
Asynchronous - 9,600 bps
Aggregate Transmission Rate: 768 bps
Maximum Output Lines:
Synchronous: 9
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates:
Asynchronous - 9,600 bps
Communications Protocols: All (Transparent)
Diagnostic Features: Local
Distribution Method: End user
Price: $495
Date First Installed: December 1983
Number Installed to Date: Under 100
(See Vendor Profile Page V-4)

CANOGA DATA SYSTEMS
CMX-320
Multiplexer Class: Fiber-Optic
Input Interface: RS-232C
Maximum Input Channels:
Synchronous: 32
Transmission Mode: Half-Duplex, Full-Duplex
Input Transmission Rates:
Asynchronous - 19,200 bps
Aggregate Transmission Rate: 9,144 bps
Maximum Output Lines:
Synchronous: 32
Asynchronous: 32
Output Transmission Mode: Half-Duplex, Full-Duplex
Output Line Transmission Rates:
Asynchronous - 14,400 bps
Communications Protocols: Bit TDM
Features: Automatic Speed Detection (Autobaud), Continual Monitoring
Diagnostic Features: Local
Distribution Method: End user
Price: $2,500
Date First Installed: November 1981
Number Installed to Date: 100 - 500
(See Vendor Profile Page V-5)

CANOGA DATA SYSTEMS
CMX-808
Multiplexer Class: Fiber-Optic
Input Interface: RS-232C
Maximum Input Channels:
Synchronous: 19
Asynchronous: 9
Transmission Mode: Full-Duplex
Input Transmission Rates:
Synchronous - 9,600 bps,
Asynchronous - 19,200 bps
Aggregate Transmission Rate: 1,536 bps
Maximum Output Lines:
Synchronous: 9
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates:
Asynchronous - 14,400 bps
Communications Protocols: Bit TDM
Features: Automatic Speed Detection (Autobaud), Continual Monitoring
Diagnostic Features: Local
Distribution Method: End user
Price: $1,200
Date First Installed: November 1982
Number Installed to Date: 100 - 500

CANOGA DATA SYSTEMS
CMX-819
Multiplexer Class: Fiber-Optic
Input Interface: RS-232C, RS-422, V.35
Maximum Input Channels:
Synchronous: 19
Asynchronous: 19
Transmission Mode: Full-Duplex
Input Transmission Rates:
Asynchronous - 19,200 bps;
Asynchronous/Synchronous - 76.8K bps
Aggregate Transmission Rate: 10 bps
Maximum Output Lines:
Synchronous: 19
Asynchronous: 19
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates:
Asynchronous - 14,400 bps,
Asynchronous/Synchronous - 64K bps
Communications Protocols: Bit TDM
Features: Automatic Speed Detection (Autobaud), Programmable, Continual Monitoring
Diagnostic Features: Local
Distribution Method: End user
Price: $2,750
Date First Installed: September 1983
Number Installed to Date: Under 100

CANOGA DATA SYSTEMS
CMX-832
Multiplexer Class: Fiber-Optic TDM
Input Interface: RS-232C
Maximum Input Channels:
Synchronous: 32
Asynchronous: 32
Transmission Mode: Full-Duplex
Input Transmission Rates:
Asynchronous/Synchronous - 19,200 bps
Aggregate Transmission Rate: 81 bps
Maximum Output Lines:
Synchronous: 32
Asynchronous: 32
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates:
Asynchronous/Synchronous - 14,400 bps
Communications Protocols: Bit TDM
Features: Automatic Speed Detection (Autobaud), Continual Monitoring
Diagnostic Features: Local
Distribution Method: End user
Price: $2,700 to $8,700
Date First Installed: November 1980
Number Installed to Date: 500 - 1,000

CERMETEK MICROELECTRONICS
MUX-MATE 840
Multiplexer Class: Statistical
Input Interface: RS-232C
Maximum Input Channels:
Synchronous: 2
Transmission Mode: Full-Duplex
Input Transmission Rates:
Asynchronous - 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps
Aggregate Transmission Rate: 24 bps
Maximum Output Lines:
Synchronous: 1
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates:
Asynchronous - 2,400 bps

Communications Protocols: HDLC (CCITT X.205 Level 2)
Features: Automatic Repeat Request, Port Contention, Flow Control, Programmable
Diagnostic Features: Local
Distribution Method: End user, Third-party
Price: $695
(See Vendor Profile Page V-5)

CINCINNATI TELECOMMUNICATIONS
TURBO MUX 2
Multiplexer Class: Statistical
Input Interface: RS-232C
Transmission Mode: Full-Duplex
Input Transmission Rates: Asynchronous - 2,400 bps
Aggregate Transmission Rate: 48 bps
Maximum Output Lines: Synchronous: 1
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates: Asynchronous - 1,200 bps
Communications Protocols: Asynchronous - Protocol
Features: Data Compression, Automatic Repeat Request, Flow Control
Diagnostic Features: Remote, Local
Distribution Method: Third-party
Price: $995
Date First Installed: April 1983
(See Vendor Profile Page V-5)

COASTCOM
O/I MUX
Multiplexer Class: Wideband (T-1)
Input Interface: RS-232C, RS-422, RS-449, CCITT V.35
Maximum Input Channels: Synchronous: 16,800 bps
Transmission Mode: Full-Duplex
Input Transmission Rates: Asynchronous - 600 bps
Aggregate Transmission Rate: 154 bps
Maximum Output Lines: Synchronous: 160
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates: Asynchronous - 600 bps
Communications Protocols: DS1
Features: Protocol Conversion, Programmable, Network Monitor
Diagnostic Features: No
Distribution Method: End user, OEM, Third-party
Price: $6,000
Date First Installed: May 1982
Number Installed to Date: 100 - 500
(See Vendor Profile Page V-5)

CODEX CORP.
670 MULTIDROP STATISTICAL MULTIPLEXORS
Multiplexer Class: Statistical
Input Interface: RS-232C, CCITT V.24/V.28
Maximum Input Channels: Synchronous: 19
Transmission Mode: Half-Duplex, Full-Duplex
Input Transmission Rates: Asynchronous - 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps
Aggregate Transmission Rate: 384 bps
Maximum Output Lines: Other: Multidrop Line
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates: Asynchronous/Synchronous - 1,200 bps, 2,400 bps; Synchronous - 1,800 bps, 4,800 bps, 9,600 bps; Asynchronous - 1,800
Communications Protocols: Ascii, Asynchronous Protocols
Features: Downline Loading (On-Line Reconfiguration), Automatic Repeat Request, Flyback Buffering Delay, Flow Control, Programmable
Diagnostic Features: Remote, Local
Distribution Method: End user
Price: $1,350 to $5,400
(See Vendor Profile Page V-5)

CODEX CORP.
6001 INTELLIGENT NETWORK PROCESSOR
Multiplexer Class: Statistical
Input Interface: RS-232C, CCITT V.24/V.28
Maximum Input Channels: Synchronous: 9
Transmission Mode: Half-Duplex, Full-Duplex, Echoplex
Input Transmission Rates: Asynchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps, 134.5K bps, 150K bps, 200K bps
Aggregate Transmission Rate: 788 bps
Maximum Output Lines: Asynchronous: 1
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates: Synchronous - 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps, 19,200 bps
Communications Protocols: Ascii, Most Asynchronous Protocols
Features: Automatic Speed Detection (Autobaud), Downline Loading (On-Line Reconfiguration), Automatic Repeat Request, Flyback Buffering Delay, Flow Control, Programmable, Satellite Link Support
Diagnostic Features: Remote, Local
Distribution Method: End user
Price: $1,500 to $4,925
Date First Installed: 1981

CODEX CORP.
6005 INTELLIGENT NETWORK PROCESSOR
Multiplexer Class: Statistical
Input Interface: RS-232C, CCITT V.24/V.28
Maximum Input Channels: Synchronous: 19 Asynchronous: 19
Transmission Mode: Half-Duplex, Full-Duplex, Echoplex
Input Transmission Rates: Asynchronous/Synchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps, 14,400 bps, 19,200 bps, 134.5K bps, 150K bps, 200K bps
Aggregate Transmission Rate: 1,536 bps
Maximum Output Lines: Asynchronous: 1
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates: Synchronous - 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps, 19,200 bps
Communications Protocols: HDLC (CCITT X.205 Level 2), SDLC, BSC, Ascii, Many Synchronous Protocol
Features: Automatic Speed Detection (Autobaud), Downline Loading (On-Line Reconfiguration), Automatic Repeat Request, Flyback Buffering Delay, Operational and Statistical Reports, Flow Control, Programmable, Satellite Capabilities Standard
Diagnostic Features: Remote, Local
Distribution Method: End user
Price: $2,800 to $7,000
Date First Installed: 1982

CODEX CORP.
6010 INTELLIGENT NETWORK PROCESSOR
Multiplexer Class: Statistical
Input Interface: RS-232C
Maximum Input Channels: Synchronous: 30
Transmission Mode: Half-Duplex, Full-Duplex, Echoplex
Input Transmission Rates: Asynchronous - 75 bps, 600 bps, 1,200 bps, 2,400 bps, 4,800 bps
Aggregate Transmission Rate: 182 bps
Maximum Output Lines: Asynchronous: 1
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates: Synchronous - 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps
Communications Protocols: CCITT X.25 (Level 2)
Features: Automatic Speed Detection (Autobaud), Downline Loading (On-Line Reconfiguration), Automatic Repeat Request, Flyback Buffering Delay, Operational and Statistical Reports, Flow Control, Network Monitor, Configurable
Diagnostic Features: Remote, Local
Distribution Method: End user
Price: $4,500
Date First Installed: 1979

CODEX CORP.
6030 INTELLIGENT NETWORK PROCESSOR
Multiplexer Class: Statistical
Input Interface: RS-232C, CCITT V.24/V.28, MIL 188C, Current Loop
Maximum Input Channels: Synchronous: 120 Asynchronous: 120
Transmission Mode: Half-Duplex, Full-Duplex, Echoplex
Input Transmission Rates: Asynchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, Asynchronous/Synchronous - 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps
Aggregate Transmission Rate: 576 bps
Maximum Output Lines: Asynchronous: 1
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates: Synchronous - 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps, 14,400 bps, 19,200 bps, 56,000 bps
Communications Protocols: HDLC (CCITT X.205 Level 2), SDLC, BSC, Ascii, Many Synchronous Protocols
Features: Automatic Speed Detection (Autobaud), Data Compression, Downline Loading (On-Line Reconfiguration), Automatic Repeat Request, Flyback Buffering Delay, Operational and Statistical Reports, Flow Control, Network Monitor
Diagnostic Features: Remote, Local
Distribution Method: End user
Price: $8,500
Date First Installed: 1977

CODEX CORP.
6040 INTELLIGENT NETWORK PROCESSOR
Multiplexer Class: Statistical
Input Interface: RS-232C, CCITT V.24/V.28, MIL 188C, Current Loop
Maximum Input Channels: Synchronous: 140 Asynchronous: 140
Transmission Mode: Half-Duplex, Full-Duplex, Echoplex
Input Transmission Rates: Asynchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, Asynchronous/Synchronous - 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps
Aggregate Transmission Rate: 576 bps
Maximum Output Lines: Asynchronous: 19
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates: Synchronous - 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps, 14,400 bps, 19,200 bps
Communications Protocols: HDLC (CCITT X.205 Level 2), SDLC, BSC, Ascii, Many Synchronous Protocols
Features: Automatic Speed Detection (Autobaud), Data Compression, Downline Loading (On-Line Reconfiguration), Automatic Repeat Request, Flyback Buffering Delay, Operational and Statistical Reports, Flow Control, Network Monitor, Multiple Protocols Configurable
Diagnostic Features: Remote, Local
Distribution Method: End user
Price: $17,000
Date First Installed: 1977

CODEX CORP.
6050 DISTRIBUTED COMMUNICATIONS PROCESSOR
Multiplexer Class: Statistical

Multiplexers

Input Interface: RS-232C
Asynchronous: 120
Transmission Mode: Half-Duplex, Full-Duplex, Echoplex
Input Transmission Rates: Asynchronous/Synchronous - 50 bps, 75 bps, 110 bps, 1,600 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps, 19,200 bps, Asynchronous - 300 bps, 600 bps, 1,200 bps
Aggregate Transmission Rate: 5,760 bps
Maximum Output Lines:
Asynchronous: 89
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates: Synchronous - 2,400 bps, 4,800 bps, 9,600 bps, 14,400 bps, 19,200 bps, 56,000 bps, Asynchronous/Synchronous - 7, 200 bps, 64,000 bps, 48,000 bps
Communications Protocols: HDLC (CCITT X.205 Level 2), SDLC, BSC, Ascii, Many Synchronous Protocols
Features: Automatic Speed Detection, Data Compression, Downline Loading (On-Line Reconfiguration), Automatic Repeat Request, Flyback Buffering Delay, Port Contention, Switching, Operational and Statistical Reports, Flow Control, Network Monitor, Configurable
Diagnostic Features: Remote, Local
Price: $45,000
Date First Installed: 1981

CODEX CORP.
694-696 SYNCHRONOUS MULTIPLEXORS
Multiplexer Class: TDM
Input Interface: RS-232C, CCITT V.24/V.28
Maximum Input Channels:
Asynchronous: 4
Transmission Mode: Half-Duplex, Full-Duplex
Input Transmission Rates: Synchronous - 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps, 19,200 bps
Aggregate Transmission Rate: 192 bps
Maximum Output Lines:
Asynchronous: 1
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates: Synchronous - 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps, 14,400 bps, 19,200 bps
Communications Protocols: HDLC (CCITT X.205 Level 2), SDLC, CCITT X.25 (Level 3), BSC, All Synchronous Protocols
Features: Downline Loading (On-Line Reconfiguration)
Diagnostic Features: Remote, Local
Distribution Method: End user
Price: $1,650 to $2,250
Date First Installed: 1976

CODEX CORP.
968 SYNCHRONOUS MULTIPLEXOR
Multiplexer Class: TDM
Input Interface: MIL 188C
Maximum Input Channels:
Asynchronous: 4
Transmission Mode: Full-Duplex
Input Transmission Rates: Synchronous - 300 bps, 600 bps, 1,200 bps, 1,600 bps, 2,400 bps, 4,800 bps, 7,200 bps, 9,600 bps, Asynchronous/Synchronous - 150 bps, 7,200 bps
Aggregate Transmission Rate: 960 bps
Maximum Output Lines:
Asynchronous: 1
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates: Synchronous - 1,200 bps, 2,400 bps, 4,800 bps, 9,600 bps, Asynchronous/Synchronous - 600 bps, 7,200 bps
Communications Protocols: HDLC (CCITT X.205 Level 2), SDLC, CCITT X.25 (Level 3), BSC, All Synchronous Protocols
Features: Downline Loading (On-Line Reconfiguration), LED Indications, Configurable
Diagnostic Features: Remote, Local
Distribution Method: End user
Price: $4,500
Date First Installed: 1980

CODEX CORP.
9069 GROUP BAND MULTIPLEXOR
Multiplexer Class: TDM
Input Interface: RS-232C, CCITT V.24/V.28
Maximum Input Channels:
Asynchronous - 20
Transmission Mode: Half-Duplex, Full-Duplex
Input Transmission Rates: Synchronous - 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps, 19,200 bps
Aggregate Transmission Rate: 640 bps
Maximum Output Lines:
Asynchronous: 1
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates: Synchronous - 4,800 bps, 56,000 bps; Asynchronous/Synchronous - 50,000 bps, 64,000 bps
Communications Protocols: HDLC (CCITT X 205 Level 2), SDLC, CCITT X.25 (Level 3), BSC, All Synchronous Protocols
Features: Configurable, LED Indicators
Diagnostic Features: Remote, Local
Distribution Method: End user
Price: $5,000
Date First Installed: 1974

COHERENT COMMUNICATIONS SYSTEMS CORP.
FBM-76
Multiplexer Class: FDM
Input Interface: CCITT V 24/V.28, Optional Office Telex
Maximum Input Channels:
Synchronous: 36
Transmission Mode: Full-Duplex
Input Transmission Rates: Asynchronous - 50 bps, 75 bps, 110 bps, 150 bps, 200 bps, 225 bps, 300 bps, 600 bps
Aggregate Transmission Rate: 226 bps
Maximum Output Lines:
Synchronous: 36
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates: Asynchronous - 50 bps, 75 bps, 110 bps, 150 bps, 200 bps, 2,400 bps
Communications Protocols: Ascii
Features: Programmable, Voice-grade Circuit Use
Diagnostic Features: Local
Distribution Method: End user
Price: $7,200 to $11,400
Date First Installed: 1978
Number Installed to Date: 10,000 - 50,000
(See Vendor Profile Page V-5)

COHERENT COMMUNICATIONS SYSTEMS CORP.
LINEMATE 189
Multiplexer Class: FDM
Input Interface: RS-232C
Transmission Mode: Full-Duplex
Input Transmission Rates: Synchronous - 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps, 19,200 bps; Asynchronous/Synchronous - 19,200 bps
Aggregate Transmission Rate: 192 bps
Maximum Output Lines:
Synchronous: 1
Asynchronous: 1
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates: Asynchronous/Synchronous - 14,400 bps
Features: Simultaneous Voice/Data, 0/2 Wire Twisted Pair
Diagnostic Features: Local
Distribution Method: End user, OEM
Price: $500
Date First Installed: April 1982
Number Installed to Date: 100 - 600

COHERENT COMMUNICATIONS SYSTEMS CORP.
SPB-94A
Multiplexer Class: FDM
Input Interface: RS-232C
Maximum Input Channels:
Synchronous: 1
Transmission Mode: Half-Duplex, Full-Duplex
Input Transmission Rates: Asynchronous - 300 bps
Aggregate Transmission Rate: 3 bps
Maximum Output Lines:
Synchronous: 2
Output Transmission Mode: Half-Duplex, Full-Duplex
Output Line Transmission Rates: Asynchronous - 300 bps
Communications Protocols: Any
Features: Simultaneous Voice/Data, Dial-up Network
Diagnostic Features: Local
Distribution Method: End user, OEM, Third-party
Price: $475
Date First Installed: July 1983
Number Installed to Date: Under 100

COMDESIGN, INC.
TC-600
Multiplexer Class: Statistical
Input Interface: RS-232C, CCITT V.24/V.28
Maximum Input Channels:
Synchronous: 32
Asynchronous: 32
Transmission Mode: Full-Duplex, Echoplex
Input Transmission Rates: Asynchronous/Synchronous - 9,600 bps
Aggregate Transmission Rate: 3,072 bps
Maximum Output Lines:
Synchronous: 1
Asynchronous: 1
Output Transmission Mode: Full-Duplex, Echoplex
Output Line Transmission Rates: Asynchronous/Synchronous - 14,400 bps
Communications Protocols: User Selectable
Features: Automatic Speed Dytection, Data Compression, Protocol Conversion, Downline Loading (On-Line Reconfiguration), Automatic Repeat Request, Flyback Buffering Delay, Operational and Statistical Reports, Flow Control, Programmable, Network Monitor, Front Panel Security
Diagnostic Features: Remote
Distribution Method: End user, Third-party
Price: $1,700 to $7,800
Date First Installed: February 1982
Number Installed to Date: 100 - 500
(See Vendor Profile Page V-6)

COMMUNICATION DEVICES, INC.
01-00-0078
Multiplexer Class: Statistical
Input Interface: RS-232C
Maximum Input Channels:
Asynchronous: 9
Transmission Mode: Full-Duplex
Input Transmission Rates: Synchronous - 1,200 bps
Aggregate Transmission Rate: 96 bps
Maximum Output Lines:
Asynchronous: 9
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates: Synchronous - 9,600 bps
Communications Protocols: HDLC (CCITT X.205 Level 2),
Features: Protocol Conversion, Downline Loading (On-Line Reconfiguration), Automatic Repeat Request, Polling, Port Contention, Flow Control
Diagnostic Features: No
Distribution Method: End user
Price: $2,000
Date First Installed: 1976
Number Installed to Date: Under 100
(See Vendor Profile Page V-6)

COMPLEX SYSTEMS, INC.
AMUX 4/8
Multiplexer Class: Statistical
Input Interface: RS-232C
Maximum Input Channels:
Synchronous: 9
Transmission Mode: Half-Duplex, Full-Duplex
Input Transmission Rates:
Asynchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,200 bps, 1,600 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps, 19,200 bps
Aggregate Transmission Rate: 384 bps
Output Transmission Mode: Half-Duplex, Full-Duplex
Output Line Transmission Rates:
Synchronous - 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps
Communications Protocols:
Complex X 25 (DERT X.25)
Features: Data Compression, Downline Loading (On-Line Reconfiguration), Automatic Repeat Request, Flyback Buffering Delay, Port Contention, Switching, Flow Control, Programmable, Menu-Driven Setup
Diagnostic Features: Remote, Local
Distribution Method: Third-party
Price: $1,350 to $1,950
Number Installed to Date: Under 100
(See Vendor Profile Page V-6)

COMPRE COMMUNICATIONS, INC.
BLINK 2AA24
Multiplexer Class: Statistical
Input Interface: RS-232C
Transmission Mode: Full-Duplex
Input Transmission Rates:
Asynchronous - 2,400 bps
Aggregate Transmission Rate: 192 bps
Maximum Output Lines:
Synchronous: 1
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates:
Asynchronous - 2,400 bps
Communications Protocols:
Proprietary
Features: Protocol Conversion, Automatic Repeat Request, Flow Control, Programmable, Network Monitor, Automatic Passthrough
Diagnostic Features: Remote, Local
Distribution Method: End user, OEM, Third-party
Price: $675
Date First Installed: October 1982
Number Installed to Date: 500 - 1,000
(See Vendor Profile Page V-6)

COMPRE COMMUNICATIONS, INC.
BLINK 2AB196
Multiplexer Class: Statistical
Input Interface: RS-232C
Transmission Mode: Full-Duplex
Input Transmission Rates:
Synchronous - 9,600 bps
Aggregate Transmission Rate: 192 bps
Maximum Output Lines:
Asynchronous: 1
Output Line Transmission Rates:
Synchronous - 2,400 bps
Communications Protocols:
Proprietary
Features: Protocol Conversion, Automatic Repeat Request, Flow Control, Programmable, Network Monitor, Automatic Passthrough
Diagnostic Features: Remote, Local
Distribution Method: End user, OEM, Third-party
Price: $675
Date First Installed: October 1982
Number Installed to Date: 500 - 1,000

COMPRE COMMUNICATIONS, INC.
DATA XCHANGE
Multiplexer Class: Statistical
Input Interface: RS-232C
Maximum Input Channels:
Synchronous: 32
Transmission Mode: Full-Duplex
Input Transmission Rates:
Asynchronous - 110 bps, 9,600 bps
Aggregate Transmission Rate: 3,072 bps
Maximum Output Lines:
Synchronous: 1
Asynchronous: 1
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates:
Asynchronous/Synchronous - 14,400 bps
Features: Automatic Speed Detection (Autobaud), Data Compression, Downline Loading (On-Line Reconfiguration), Automatic Repeat Request, Operational and Statistical Reports, Flow Control, Programmable, Network Monitor, Field Expandable, Upgradable
Diagnostic Features: Remote, Local
Distribution Method: End user, OEM, Third-party
Price: $2,550 to $9,800
Date First Installed: June 1981
Number Installed to Date: 600 - 1,000

COMPRE COMMUNICATIONS, INC.
ECONO SERIES 4
Multiplexer Class: Statistical
Input Interface: RS-232C
Transmission Mode: Full-Duplex
Input Transmission Rates:
Asynchronous - 300 bps, 1,200 bps, 2,400 bps, 4,800 bps
Aggregate Transmission Rate: 192 bps
Maximum Output Lines:
Synchronous: 1
Asynchronous: 1
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates:
Asynchronous - 4,800 bps, Synchronous - 9,600 bps
Features: Automatic Repeat Request, Flow Control, Programmable
Diagnostic Features: Local
Distribution Method: End user, OEM, Third-party
Price: $1,095
Date First Installed: January 1981
Number Installed to Date: 100 - 500

COMPRE COMMUNICATIONS, INC.
ECONO SERIES 9
Multiplexer Class: Statistical
Input Interface: RS-232C
Transmission Mode: Full-Duplex
Input Transmission Rates:
Asynchronous - 300 bps, 1,200 bps, 2,400 bps, 4,800 bps
Aggregate Transmission Rate: 384 bps
Maximum Output Lines:
Asynchronous: 1
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates:
Asynchronous - 9,600 bps
Features: Automatic Repeat Request, Operational and Statistical Reports, Flow Control, Programmable, Network Monitor
Diagnostic Features: Local
Distribution Method: End user, OEM, Third-party
Price: $1,695
Date First Installed: January 1981
Number Installed to Date: 100 - 500

COMPRE COMMUNICATIONS, INC.
Q-LINK 4AA24
Multiplexer Class: Statistical
Input Interface: RS-232C
Transmission Mode: Full-Duplex
Input Transmission Rates:
Asynchronous - 2,400 bps
Aggregate Transmission Rate: 96 bps
Maximum Output Lines:
Synchronous: 1
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates:
Asynchronous - 9,600 bps
Features: Downline Loading (On-Line Reconfiguration), Automatic Repeat Request, Operational and Statistical Reports, Flow Control, Programmable, Network Monitor, Automatic Passthrough
Diagnostic Features: Remote, Local
Distribution Method: End user, OEM, Third-party
Price: $1,195
Date First Installed: February 1983
Number Installed to Date: 100 - 500

COMPRE COMMUNICATIONS, INC.
Q-LINK 4AS192
Multiplexer Class: Statistical
Input Interface: RS-232C
Input Transmission Rates:
Synchronous - 4,800 bps, Synchronous - 9,600 bps
Aggregate Transmission Rate: 24 bps
Maximum Output Lines:
Asynchronous: 1
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates:
Asynchronous - 9,600 bps
Features: Downline Loading (On-Line Reconfiguration), Automatic Repeat Request, Operational and Statistical Reports, Flow Control, Programmable, Network Monitor, Automatic Passthrough
Diagnostic Features: Remote, Local
Distribution Method: End user, OEM, Third-party
Price: $1,195
Date First Installed: February 1983
Number Installed to Date: 100 - 600

COMPUTER COMMUNICATIONS SPECIALISTS, INC.
CHANNEL COMMUNICATIONS CONCENTRATOR (CCC)
Multiplexer Class: TDM
Input Interface: Proprietary
Maximum Input Channels:
Synchronous: 64
Transmission Mode: Half-Duplex
Input Transmission Rates:
Asynchronous - 9,600 bps
Maximum Output Lines:
Synchronous: 3
Output Transmission Mode: Half-Duplex
Output Line Transmission Rates:
Asynchronous - 9,600 bps
Features: Downline Loading (On-Line Reconfiguration), Automatic Repeat Request, Port Contention, Switching, Flow Control, Network Monitor
Diagnostic Features: Local
Distribution Method: End user
Price: $3,695
Date First Installed: February 1982
Number Installed to Date: Under 100
(See Vendor Profile Page V-6)

COMPUTER IDENTICS CORP.
RAMM-16
Multiplexer Class: Statistical
Input Interface: RS-232C, 20 MA Current Loop
Maximum Input Channels:
Synchronous: 16
Input Transmission Rates:
Asynchronous - 110 bps, 300 bps, 600 bps, 1,200 bps, 2,400 bps, 4,800 bps, 9,600 bps
Aggregate Transmission Rate: 96 bps
Maximum Output Lines:
Synchronous: 1
Output Transmission Mode: Half-Duplex
Output Line Transmission Rates:
Asynchronous - 2,400 bps, 4,800 bps, 9,600 bps, 14,400 bps, 56,000 bps
Communications Protocols: SDLC, BSC, Ascii
Features: Protocol Conversion, Polling, Port Contention
Diagnostic Features: Local
Distribution Method: Third-party
Price: $4,000
Date First Installed: June 1978
Number Installed to Date: Under 100
(See Vendor Profile Page V-7)

COMPUTER IDENTICS CORP.
TAMM-16A
Multiplexer Class: Statistical
Input Interface: RS-232C, 20MA Current Loop

Multiplexers

Maximum Input Channels:
Synchronous: 18
Transmission Mode: Half-Duplex
Transmission Rate : Asynchronous - 110 bps, 300 bps, 600 bps, 1,200 bps, 4,800 bps, 9,600 bps
Aggregate Transmission Rate: 96 bps
Maximum Output Lines:
Synchronous: 1
Output Transmission Mode: Half-Duplex
Output Line Transmission Rates: Asynchronous - 2,400 bps, 4,800 bps, 9,600 bps, 14,400 bps, 56,000 bps
Communications Protocols: SDLC, BSC, Ascii
Features: Protocol Conversion, Polling, Port Contention
Diagnostic Features: Local
Distribution Method: Third-party
Price: $5,000
Date First Installed: February 1978
Number Installed to Date: Under 100

COMPUTER SECURITY SYSTEMS, INC.
CSI 86MUX
Multiplexer Class: TDM
Input Interface: RS-232C
Maximum Input Channels:
Synchronous: 48
Transmission Mode: Full-Duplex
Input Transmission Rates: Asynchronous - 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps
Maximum Output Lines:
Asynchronous: 1
Output Transmission Mode: Full-Duplex
Communications Protocols: Ascii
Features: Protocol Conversion, (On-Line Reconfiguration), Flyback Buffering Delay, Polling, Port Contention, Flow Control
Diagnostic Features: Remote, Local
Distribution Method: End user
Price: $300
Date First Installed: 1980
Number Installed to Date: 100 - 600
(See Vendor Profile Page V-7)

COMPUTER PERIPHERAL SYSTEMS, INC.
MARS SYSTEM
MUX/CONCENTRATOR
Multiplexer Class: Statistical
Input Interface: RS-232C
Maximum Input Channels:
Synchronous: 8
Asynchronous: 8
Transmission Mode: Half-Duplex
Input Transmission Rates: Asynchronous/Synchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps, 19,200 bps
Aggregate Transmission Rate: 192 bps
Maximum Output Lines:
Synchronous: 8
Asynchronous: 4
Output Transmission Mode: Half-Duplex
Output Line Transmission Rates: Asynchronous/Synchronous - 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps, 14,400 bps, 19,200 bps
Features: Data Compression, Protocol Conversion, Downline Loading (On-Line Reconfiguration), Automatic Repeat Request, Flyback Buffering Delay, Polling, Port Contention, Switching, Flow Control, Programmable, Burroughs-Oriented
Diagnostic Features: Remote, Local
Distribution Method: End user
Price: $1,800 to $5,000
Date First Installed: July 1982
Number Installed to Date: Under 100
(See Vendor Profile Page V-7)

COMPUTER SYSTEMS CS/86
Multiplexer Class: Concentrator
Input Interface: RS-232C, RS-422, CCITT V.24/V.28
Maximum Input Channels:
Synchronous: 19
Asynchronous: 9
Transmission Mode: Half-Duplex, Full-Duplex
Input Transmission Rates: Asynchronous - 110 bps, 300 bps, 1,200 bps; Asynchronous/Synchronous - 2,400 bps, Synchronous - 4,800 bps, 9,600 bps, 19,200 bps
Aggregate Transmission Rate: 1 bps
Maximum Output Lines:
Synchronous: 2
Asynchronous: 2
Output Transmission Mode: Half-Duplex, Full-Duplex
Output Line Transmission Rates: Asynchronous/Synchronous - 2,400 bps, 4,800 bps, 9,600 bps, Synchronous - 14,400 bps, 56,000 bps
Communications Protocols: SDLC, BSC, Ascii, Custom Protocols
Features: Automatic Speed Detection (Autobaud), Data Compression, Protocol Conversion, Downline Loading (On-Line Reconfiguration), Automatic Repeat Request, Polling, Port Contention, Switching, Programmable
Diagnostic Features: Local
Distribution Method: End user, OEM
Price: $1,800 to $3,000
Date First Installed: 1983
(See Vendor Profile Page V-7)

COMPUTROL
MEGA PLEX
Multiplexer Class: Statistical
Input Interface: RS-232C, RS-422, Custom
Maximum Input Channels:
Synchronous: 64
Asynchronous: 64
Transmission Mode: Half-Duplex, Full-Duplex
Input Transmission Rates: Asynchronous - 2,400 bps, 9,600 bps
Aggregate Transmission Rate: 3,072 bps
Maximum Output Lines:
Asynchronous: 1
Output Transmission Mode: Half-Duplex, Full-Duplex
Output Line Transmission Rates: Asynchronous/Synchronous - 1M bps
Communications Protocols: HDLC (CCITT X 205 Level 2)
Features: Downline Loading (On-Line Reconfiguration), Automatic Repeat Request, Polling, Port Contention, Flow Control, Programmable, Network Monitor
Diagnostic Features: Local
Distribution Method: End user, OEM
Price: $5,000 to $10,180
Date First Installed: June 1981
(See Vendor Profile Page V-7)

DATABIT, INC.
MODEL 926 TELEX & DATA TDM
Multiplexer Class: TDM
Input Interface: CCITT R.101
Maximum Input Channels:
Synchronous: 92
Asynchronous: 92
Input Transmission Rates: Asynchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, Asynchronous/Synchronous - 1,200 bps, 1,800 bps, 2,400 bps, Synchronous - 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps
Aggregate Transmission Rate: 560 bps
Features: Programmable
Diagnostic Features: Local
Distribution Method: End user
(See Vendor Profile Page V-9)

DATAGRAM CORP.
DM 600
Multiplexer Class: Statistical
Input Interface: RS-232C, 20 mA Current Loop, CCITT V.24/V.28
Maximum Input Channels:
Synchronous: 8
Asynchronous: 1
Transmission Mode: Half-Duplex, Full-Duplex, Echoplex
Input Transmission Rates: Asynchronous - 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, Asynchronous/Synchronous - 2,400 bps, 3600 bps, 4,800 bps, 7200 bps, 9,600 bps
Aggregate Transmission Rate: 864 bps
Maximum Output Lines:
Synchronous: 1
Asynchronous: 1
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates: Asynchronous/Synchronous - 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps, 19,200 bps, 14,400 bps
Communications Protocols: HDLC (CCITT X.205 Level 2), Ascii
Features: Automatic Speed Detection (Autobaud), Data Compression, Downline Loading (On-Line Reconfiguration), Automatic Repeat Request, Flyback Buffering Delay, Port Contention, Switching, Flow Control, Operational and Statistical Reports, Programmable, Network Monitor
Diagnostic Features: Remote, Local
Distribution Method: End user, Third-party
Price: $1,550 to $2,750
Date First Installed: June 1982
Number Installed to Date: 600 - 1,000
(See Vendor Profile Page V-9)

DATAGRAM CORP.
DM 1600
Multiplexer Class: Statistical
Input Interface: RS-232C
Maximum Input Channels:
Synchronous: 19
Asynchronous: 4
Transmission Mode: Half-Duplex, Echoplex
Input Transmission Rates: Asynchronous - 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 7,200 bps, 9,600 bps
Aggregate Transmission Rate: 9,600 bps
Maximum Output Lines:
Synchronous: 1
Asynchronous: 1
Output Line Transmission Rates: Asynchronous/Synchronous - 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps, 14,400 bps, 19,200 bps
Communications Protocols: HDLC (CCITT X.205 Level 2), Ascii
Features: Automatic Speed Detection (Autobaud), Data Compression, Downline Loading (On-Line Reconfiguration), Automatic Repeat Request, Flyback Buffering Delay, Port Contention, Switching, Flow Control, Programmable, Network Monitor
Diagnostic Features: Remote, Local
Distribution Method: End user, Third-party
Price: $2,200 to $4,800
Date First Installed: June 1979
Number Installed to Date: 500 - 1,000

DATAGRAM CORP.
DM 4800
Multiplexer Class: Statistical
Input Interface: RS-232C, CCITT V.24/V.28, 20 mA Current Loop
Maximum Input Channels:
Synchronous: 52
Asynchronous: 4
Transmission Mode: Half-Duplex, Full-Duplex, Echoplex
Input Transmission Rates: Asynchronous - 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, Asynchronous/Synchronous - 2,400 bps, 7,200 bps, 9,600 bps
Aggregate Transmission Rate: 9,600 bps
Maximum Output Lines:
Synchronous: 1
Asynchronous: 1
Output Line Transmission Rates: Synchronous/Asynchronous - 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps, 14,400 bps, 19,200 bps
Communications Protocols: HDLC (CCITT X.205 Level 2), Ascii
Features: Automatic Speed Detection (Autobaud), Data

Compression, Downline Loading (On-Line Reconfiguration), Automatic Repeat Request, Flyback Buffering Delay, Port Contention, Switching, Flow Control, Programmable, Network Monitor, Operational and Statistical Reports
Diagnostic Features: Remote, Local
Distribution Method: End user, Third-party
Price: $3,500 to $13,250
Date First Installed: June 1980
Number Installed to Date: 500 - 1,000

DATAPRODUCTS NEW ENGLAND, INC.
DP MUX-396
Multiplexer Class: Statistical
Input Interface: EIA
Maximum Input Channels:
Synchronous: 32
Asynchronous - 32
Transmission Mode: Full-Duplex
Input Transmission Rates:
Asynchronous - 50 bps, 110 bps, 1,800 bps, 3,600 bps,
Asynchronous/Synchronous - 75 bps, 110 bps, 300 bps, 600 bps, 1,200 bps, 2,400 bps, 4,800 bps, 7,200 bps, 9,600 bps, 19,200 bps, Synchronous 150 bps, 9,000 bps, 19,000 bps, 32,000 bps
Aggregate Transmission Rate: 2,500 bps
Maximum Output Lines:
Synchronous: 1
Asynchronous: 1
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates: Asynchronous/Synchronous - 110 bps, 300 bps, 600 bps, 1,200 bps, 2,400 bps, 4,800 bps, 9,600 bps, 14,400 bps
Communications Protocols: HDLC (CCITT X.205 Level 2), SDLC, CCITT X.25 (Level 3), BSC, Ascii
Features: Downline Loading (On-Line Reconfiguration), Operational and Statistical Reports, Programmable
Diagnostic Features: Local
Distribution Method: End user
Price: $4,842 to $6,550
Date First Installed: 1983
Number Installed to Date: Under 100
(See Vendor Profile Page V-9)

DATAPRODUCTS NEW ENGLAND, INC.
MC 3
Multiplexer Class: Statistical
Input Interface: EIA
Maximum Input Channels:
Synchronous: 32
Asynchronous: 32
Transmission Mode: Full-Duplex
Input Transmission Rates: Asynchronous - 75 bps, 110 bps, Asynchronous/Synchronous - 300 bps, 1,200 bps, 2,400 bps, 4,800 bps, Synchronous - 600 bps, 9,600 bps, 19,200 bps
Maximum Output Lines:
Asynchronous: 1
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates: Asynchronous/Synchronous - 1,200 bps, 4,800 bps, Synchronous - 9,600 bps, 14,400 bps, 56,000 bps
Communications Protocols: HDLC (CCITT X.205 Level 2), SDLC, CCITT X.25 (Level 3), BSC, Ascii
Features: Downline Loading (On-Line Reconfigurstion), Operational and Statistical Reports, Programmable
Diagnostic Features: No
Distribution Method: End user
Price: $6,715 to $10,800
Date First Installed: 1980

DATATEL, INC.
DCP 6600
Multiplexer Class: Statistical
Input Interface: RS-232C
Maximum Input Channels:
Synchronous: 4
Transmission Mode: Half-Duplex, Full-Duplex
Input Transmission Rates: Asynchronous - 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps
Aggregate Transmission Rate: 192 bps
Maximum Output Lines:
Asynchronous: 1
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates: Synchronous - 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps, 14,400 bps, 19,200 bps
Features: Automatic Speed Detection (Autobaud), Downline Loading (On-Line Reconfiguration), Automatic Repeat Request, Flyback Buffering Delay, Operational and Statistical Reports, Flow Control, Programmable, Network Monitor
Diagnostic Features: Remote, Local
Distribution Method: End user, Third-party
Price: $1,300
Date First Installed: 1982
Number Installed to Date: Under 100
(See Vendor Profile Page V-10)

DATATEL, INC.
DCP 9100
Multiplexer Class: TDM
Input Interface: RS-232C, V.35
Maximum Input Channels:
Asynchronous: 96
Transmission Mode: Half-Duplex, Full-Duplex
Input Transmission Rates: Asynchronous/Synchronous - 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps, 19,200 bps
Aggregate Transmission Rate: 15,400 bps
Maximum Output Lines:
Asynchronous: 1
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates: Asynchronous/Synchronous - 1.5M bps
Communications Protocols: DY/FE
Features: Downline Loading (On-Line Reconfiguration), Operational and Statistical Reports, Programmable, Network Monitor
Diagnostic Features: Remote, Local
Price: $3,850
Date First Installed: February 1983
Number Installed to Date: Under 100

DATEC, INC.
DATEC DATAMUX
Multiplexer Class: Statistical
Input Interface: RS-232C
Maximum Input Channels:
Synchronous: 2
Transmission Mode: Full-Duplex
Input Transmission Rates: Asynchronous - 110 bps, 300 bps, 1,200 bps, 2,400 bps, 4,800 bps, 9,600 bps
Aggregate Transmission Rate: 192 bps
Maximum Output Lines:
Asynchronous: 1
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates: Asynchronous - Up to 9,600
Communications Protocols: SDLC Subset
Features: Automatic Speed Detection (Autobaud), Data Compression, Automatic Repeat Request, Polling, Flow Control, Programmable, End to End Speed Conversion
Diagnostic Features: Remote, Local
Distribution Method: Third-party
Price: $835
Date First Installed: 1983
Number Installed to Date: Under 100
(See Vendor Profile Page V-10)

DCA/TAC
AYARWM 396
Multiplexer Class: Statistical
Input Interface: RS-232C, CCITT V.24/V.28
Maximum Input Channels:
Synchronous: 128
Transmission Mode: Full-Duplex, Echoplex
Input Transmission Rates: Asynchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps
Aggregate Transmission Rate: 12 bps
Maximum Output Lines:
Asynchronous: 1
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates: Synchronous - 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps
Communications Protocols: Ascii, DDCMP
Features: Automatic Speed Detection (Autobaud), Data Compression, Automatic Repeat Request, Flyback Buffering Delay, Polling, Flow Control, Programmable, Network Monitor
Diagnostic Features: Remote, Local
Distribution Method: End user
Price: $4,250 to $6,000
Date First Installed: 1979
Number Installed to Date: Under 100
(See Vendor Profile Page V-10)

DCA/TAC
SYSTEM 196
Multiplexer Class: Statistical
Input Interface: RS-232C, CCITT V.24/V.28
Maximum Input Channels:
Synchronous: 9
Transmission Mode: Half-Duplex, Full-Duplex, Echoplex
Input Transmission Rates: Asynchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps
Aggregate Transmission Rate: 96 bps
Maximum Output Lines:
Asynchronous: 1
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates: Synchronous - 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps
Communications Protocols: DDCMP
Features: Automatic Speed Detection (Autobaud), Data Compression, Downline Loading (On-Line Reconfiguration), Automatic Repeat Request, Flyback Buffering Delay, Operational and Statistical Reports, Flow Control, Programmable, Network Monitor
Diagnostic Features: Remote, Local
Distribution Method: End user, OEM
Price: $1,295 to $2,850
Date First Installed: 1980
Number Installed to Date: Under 100

DCA/TAC
SYSTEM 116
Multiplexer Class: Statistical
Input Interface: RS-232C, CCITT V.24/V.28
Maximum Input Channels:
Synchronous: 9
Transmission Mode: Half-Duplex, Full-Duplex, Echoplex
Input Transmission Rates: Asynchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps
Aggregate Transmission Rate: 576 bps
Maximum Output Lines:
Asynchronous: 1
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates: Synchronous - 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps, 14,400 bps, 19,200 bps
Communications Protocols: DDCMP
Features: Automatic Speed Detection (Autobaud), Data Compression, Downline Loading (On-Line Reconfiguration), Automatic Repeat Request, Flyback Buffering Delay, Operational and Statistical Reports, Flow Control, Programmable, Network Monitor
Diagnostic Features: Remote, Local

Multiplexers

Distribution Method: End user, OEM
Price: $1,495 to $2,850
Date First Installed: 1982
Number Installed to Date: Under 100

DCA/TAC
SYSTEM 120
Multiplexer Class: Statistical
Input Interface: RS-232C, CCITT V.24/V.28
Maximum Input Channels:
Synchronous: 32
Transmission Mode: Half-Duplex, Full-Duplex, Echoplex
Input Transmission Rates: Asynchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps
Aggregate Transmission Rate: 576 bps
Maximum Output Lines:
Asynchronous: 1
Output Transmission Mode: Half-Duplex, Full-Duplex, Echoplex
Output Line Transmission Rates: Synchronous - 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps, 14,400 bps, 19,200 bps
Communications Protocols: Ascii, Transparent
Features: Automatic Speed Detection (Autobaud), Data Compression, Downline Loading (On-Line Reconfiguration), Flyback Buffering Delay, Operational and Statistical Reports, Flow Control, Programmable, Network Monitor
Diagnostic Features: Remote, Local
Distribution Method: End user, Third-party
Price: $2,450 to $8,595
Date First Installed: 1982
Number Installed to Date: Under 100

DCA/TAC
SYSTEM 125
Multiplexer Class: Statistical
Input Interface: RS-232C, CCITT V.24/V.28
Maximum Input Channels:
Synchronous: 32
Transmission Mode: Half-Duplex, Full-Duplex, Echoplex
Input Transmission Rates: Asynchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps
Aggregate Transmission Rate: 576 bps
Maximum Output Lines:
Asynchronous: 1
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates: Synchronous - 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps, 14,400 bps, 19,200 bps
Communications Protocols: Ascii, DDCMP
Features: Automatic Speed Detection (Autobaud), Data Compression, Downline Loading (On-Line Reconfiguration), Automatic Repeat Request, Flyback Buffering Delay, Polling, Operational and Statistical Reports, Flow Control, Programmable, Network Monitor
Diagnostic Features: Remote, Local
Distribution Method: End user
Price: $3,250 to $9,395
Date First Installed: 1982
Number Installed to Date: Under 100

DCA/TAC
SYSTEM 325 NETSWITCH
Multiplexer Class: Statistical
Input Interface: RS-232C, CCITT V.24/V.28
Maximum Input Channels:
Synchronous: 1,472
Transmission Mode: Half-Duplex, Full-Duplex, Echoplex
Input Transmission Rates: Asynchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps
Maximum Output Lines:
Asynchronous: 11
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates: Synchronous - 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps, 14,400 bps, 19,200 bps
Communications Protocols: Ascii, DDCMP
Features: Automatic Speed Detection (Autobaud), Data Compression, Downline Loading (On-Line Reconfiguration), Automatic Repeat Request, Flyback Buffering Delay, Port Contention, Switching, Operational and Statistical Reports, Flow Control, Programmable, Network Monitor
Diagnostic Features: Remote, Local
Distribution Method: End user
Price: $12,560
Date First Installed: January 1982
Number Installed to Date: Under 100

DCA/TAC
SYSTEM 336
Multiplexer Class: Statistical
Input Interface: RS-232C, CCITT V.24/V.28
Maximum Input Channels:
Synchronous: 42
Transmission Mode: Half-Duplex, Full-Duplex, Echoplex
Input Transmission Rates: Asynchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps
Maximum Output Lines:
Asynchronous: 4
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates: Synchronous - 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps, 14,400 bps, 19,200 bps
Communications Protocols: CCITT X.25 (Level 3), BSC, Ascii, DDCMP
Features: Automatic Speed Detection (Autobaud), Data Compression, Protocol Conversion, Downline Loading (On-Line Reconfiguration), Automatic Repeat Request, Flyback Buffering Delay, Polling, Port Contention, Switching, Operational and Statistical Reports, Flow Control, Programmable, Network Monitor
Diagnostic Features: Remote, Local
Distribution Method: End user, OEM
Price: $6,795 to $7,195
Date First Installed: 1983
Number Installed to Date: Under 100

DCA/TAC
SYSTEM 365
Multiplexer Class: Statistical
Input Interface: RS-232C, CCITT V.24/V.28
Maximum Input Channels:
Synchronous: 1,400
Transmission Mode: Half-Duplex, Full-Duplex, Echoplex
Input Transmission Rates: 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps
Maximum Output Lines:
Asynchronous: 44
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates: Synchronous - 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps, 14,400 bps, 19,200 bps
Communications Protocols: CCITT X.25 (Level 3), BSC, Ascii, DDCMP
Features: Automatic Speed Detection (Autobaud), Data Compression, Protocol Conversion, Downline Loading (On-Line Reconfiguration), Automatic Repeat Request, Flyback Buffering Delay, Polling, Port Contention, Switching, Operational and Statistical Reports, Flow Control, Programmable, Network Monitor
Diagnostic Features: Remote, Local
Distribution Method: End user, OEM
Price: $9,595 to $11,295
Date First Installed: 1980

DCA/TAC
T-1 SPEED TIME DIVISION MULTIPLEXOR
Multiplexer Class: TDM
Input Interface: RS-232C, RS-422, CCITT V.24/V.28, RS-423, V.35, Bell 303
Maximum Input Channels:
Synchronous: 128
Asynchronous: 128
Transmission Mode: Full-Duplex
Input Transmission Rates: Asynchronous/Synchronous - 50 bps, 100 bps, 102 bps, 300 bps, 400 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps, 19,200 bps
Aggregate Transmission Rate: 20,480 bps
Maximum Output Lines:
Asynchronous: 1
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates: Synchronous - 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps, 14,400 bps, 19,200 bps, 56,000 bps; Asynchronous - T-1, Asynchronous/Synchronous - 100 bps, 102 bps, 400 bps
Communications Protocols: HDLC (CCITT X.205 Level 2), SDLC, CCITT X.25 (Level 3), BSC, Ascii, Transparent
Features: Downline Loading (On-Line Reconfiguration), Operational, Statistical Reports, Programmable, Bandwidth Contention
Diagnostic Features: Remote, Local
Distribution Method: End user
Price: $3,800 to $4,950
Date First Installed: December 1983
Number Installed to Date: Under 100

DEVELCON ELECTRONICS, INC.
DS1600
Multiplexer Class: Statistical
Input Interface: RS-232C, 20 mA Current Loop
Maximum Input Channels:
Synchronous: 19
Transmission Mode: Half-Duplex, Full-Duplex, Echoplex
Input Transmission Rates: Asynchronous - 9,800 bps
Aggregate Transmission Rate: 192 bps
Maximum Output Lines:
Asynchronous: 1
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates: Synchronous - 14,400 bps
Communications Protocols: HDLC (CCITT X.208 Level 2)
Features: Automatic Speed Detection (Autobaud), Data Compression, Downline Loading (On-Line Reconfiguration), Port Contention, Programmable, Burst Aggregate - 76,800 bps
Diagnostic Features: Remote, Local
Distribution Method: Third-party
Price: $2,800 to $5,000
(See Vendor Profile Page V-10)

DEVELCON ELECTRONICS, INC.
DS1600
Multiplexer Class: Statistical
Input Interface: RS-232C, 20 mA Current Loop
Maximum Input Channels:
Synchronous: 9
Transmission Mode: Half-Duplex, Full-Duplex, Echoplex
Input Transmission Rates: Asynchronous - 9,800 bps
Aggregate Transmission Rate: 192 bps
Maximum Output Lines:
Asynchronous: 1
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates: Asynchronous - 14,400 bps
Communications Protocols: HDLC (CCITT X.205 Level 2)
Features: Automatic Speed Detection (Autobaud), Data Compression, Downline Loading (On-Line Reconfiguration), Port Contention, Programmable, Burst Aggregate - 76,800 bps
Diagnostic Features: Remote, Local
Distribution Method: Third-party
Price: $1,550 to $2,750

DEVELCON ELECTRONICS, INC.
DS4800
Multiplexer Class: Statistical
Input Interface: RS-232C
Maximum Input Channels:
Synchronous: 52
Transmission Mode: Half-Duplex, Full-Duplex, Echoplex
Input Transmission Rates:
Asynchronous - 9,600 bps
Aggregate Transmission Rate: 192 bps
Maximum Output Lines:
Asynchronous: 1
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates:
Synchronous - 14,400 bps
Communications Protocols: HDLC (CCITT X.205 Level 2)
Features: Automatic Speed Detection (Autobaud), Data Compression, Downline Loading (On-Line Reconfiguration), Port Contention, Programmable, Burst Aggregate - 76,800 bps
Diagnostic Features: Remote, Local
Distribution Method: Third-party
Price: $3,650 to $13,250

DIGITAL EQUIPMENT CORP.
DFM04
Multiplexer Class: Statistical
Input Interface: RS-232C, RS-423
Maximum Input Channels:
Synchronous: 4
Asynchronous: 4
Input Transmission Rates:
Synchronous - Up to 9,600 bps
Aggregate Transmission Rate: 1,536 bps
Features: Automatic Speed Detection (Autobaud), Downline Loading (On-Line Reconfiguration)
Diagnostic Features: Remote, Local
Price: $2,975
Date First Installed: 1983
(See Vendor Profile Page V-10)

DIGITAL EQUIPMENT CORP.
DFM08
Multiplexer Class: Statistical
Input Interface: RS-232C, RS-423
Maximum Input Channels:
Synchronous: 8
Asynchronous: 8
Input Transmission Rates:
Synchronous - Up to 9,600 bps
Aggregate Transmission Rate: 1,536 bps
Features: Automatic Speed Detection (Autobaud), Downline Loading (On-Line Reconfiguration)
Diagnostic Features: Remote, Local
Price: $3,390
Date First Installed: 1983

DIGITAL EQUIPMENT CORP.
DFM12
Multiplexer Class: Statistical
Input Interface: RS-232C, RS-423
Maximum Input Channels:
Synchronous: 12
Asynchronous: 12
Input Transmission Rates:
Synchronous - Up to 9,600 bps
Aggregate Transmission Rate: 1,536 bps
Features: Automatic Speed Detection (Autobaud), Downline Loading (On-Line Reconfiguration)
Diagnostic Features: Remote, Local
Price: $4,075
Date First Installed: 1983

DIGITAL EQUIPMENT CORP.
DFM16
Multiplexer Class: Statistical
Input Interface: RS-232C, RS-423
Maximum Input Channels:
Synchronous: 16
Asynchronous: 19
Input Transmission Rates:
Synchronous - Up to 9,600 bps
Aggregate Transmission Rate: 1,536 bps
Features: Automatic Speed Detection (Autobaud), Downline Loading (On-Line Reconfiguration)
Diagnostic Features: Remote, Local
Price: $4,600

DYNATECH PACKET TECHNOLOGY, INC.
DP 1000
Multiplexer Class: Statistical
Input Interface: RS-232C
Maximum Input Channels:
Synchronous: 8
Transmission Mode: Full-Duplex
Input Transmission Rates:
Asynchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,800 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps
Aggregate Transmission Rate: 760 bps
Maximum Output Lines:
Asynchronous: 1
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates:
Synchronous - 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps, 14,400 bps, 19,200 bps
Communications Protocols: SDLC
Features: Automatic Speed Detection (Autobaud), Data Compression, Protocol Conversion, Downline Loading (On-Line Reconfiguration), Polling, Port Contention, Switching, Flow Control
Diagnostic Features: Remote, Local
Distribution Method: End user
Price: $1,000 to $2,000
Date First Installed: 1981
(See Vendor Profile Page V-11)

DYNATECH PACKET TECHNOLOGY, INC.
MULTIPAD 25
Multiplexer Class: Statistical
Input Interface: RS-232C
Maximum Input Channels:
Synchronous: 64
Transmission Mode: Full-Duplex
Input Transmission Rates:
Asynchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,800 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps
Maximum Output Lines:
Asynchronous: 2
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates:
Synchronous - 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps, 14,400 bps, 19,800 bps, 56,000 bps; Asynchronous/Synchronous - Up to 64,000 bps
Communications Protocols: HDLC (CCITT X.205 Level 2), CCITT X.25 (Level 3)
Features: Automatic Speed Detection (Autobaud), Data Compression, Protocol Conversion, Downline Loading (On-Line Reconfiguration), Automatic Repeat Request, Polling, Port Contention, Switching, Operational and Statistical Reports, Flow Control, Programmable
Diagnostic Features: Remote, Local
Distribution Method: End user
Price: $3,000 to $60,000
Date First Installed: 1981

DYNATECH PACKET TECHNOLOGY, INC.
MULTIPLEX 25
Multiplexer Class: Statistical
Input Interface: RS-232C
Maximum Input Channels:
Synchronous: 64
Transmission Mode: Full-Duplex
Input Transmission Rates:
Asynchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps
Maximum Output Lines:
Asynchronous: 2
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates:
Synchronous - 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps, 14,400 bps, 19,800 bps, 56,000 bps; Asynchronous/Synchronous - Up to 64,000 bps
Communications Protocols: HDLC (CCITT X.205 Level 2), CCITT X.25 (Level 3)
Features: Automatic Speed Detection (Autobaud), Data Compression, Protocol Conversion, Downline Loading (On-Line Reconfiguration), Polling, Port Contention, Switching, Operational and Statistical Reports, Flow Control, Programmable, Network Monitor
Diagnostic Features: Remote, Local
Distribution Method: End user
Price: $1,500 to $50,000
Date First Installed: 1981

EMULEX CORP.
CS01-H
Multiplexer Class: Statistical
Input Interface: RS-232C, Current Loop
Maximum Input Channels:
Synchronous: 64
Input Transmission Rates:
Asynchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,800 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps, 19,800 bps, External Clock
Maximum Output Lines:
Synchronous: 64
Output Transmission Mode: Half-Duplex, Full-Duplex, Echoplex
Output Line Transmission Rates:
Asynchronous - 1,800 bps, 1,800 bps, 2,400 bps, 4,800 bps, 6,800 bps, 14,400 bps, External Clock
Communications Protocols: Ascii
Distribution Method: End user, OEM, Third-party
(See Vendor Profile Page V-11)

EMULEX CORP.
CS11-F
Multiplexer Class: Statistical
Input Interface: RS-232C, Current Loop
Maximum Input Channels:
Synchronous: 48
Input Transmission Rates:
Asynchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps, 19,200 bps, External Clock
Maximum Output Lines:
Synchronous: 48
Output Transmission Mode: Half-Duplex, Full-Duplex
Output Line Transmission Rates:
Asynchronous - 1,800 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps, 14,400 bps, External Clock
Communications Protocols: Ascii
Diagnostic Features: Local
Distribution Method: End user, OEM, Third-party

EMULEX CORP.
CS11-H
Multiplexer Class: Statistical
Input Interface: RS-232C, Current Loop
Maximum Input Channels:
Synchronous: 64
Transmission Mode: Half-Duplex, Full-Duplex, Echoplex
Input Transmission Rates:
Asynchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,800 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps, 19,200 bps, External Clock
Maximum Output Lines:
Synchronous: 64
Output Transmission Mode: Half-Duplex, Full-Duplex, Echoplex
Output Line Transmission Rates:
Asynchronous - 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps, 14,400 bps, External Clock
Communications Protocols: Ascii
Diagnostic Features: Local
Distribution Method: End user, OEM, Third-party

EMULEX CORP.
CS11-U
Multiplexer Class: Statistical
Input Interface: RS-232C, Current Loop
Maximum Input Channels:
Synchronous: 64
Transmission Mode: Half-Duplex, Full-Duplex, Echoplex
Input Transmission Rates:
Asynchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps, 19,200 bps, External Clock
Maximum Output Lines:
Synchronous: 64

Multiplexers

Output Transmission Mode: Half-Duplex, Full-Duplex, Echoplex
Output Line Transmission Rates: Asynchronous - 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps, 14,400 bps, External Clock
Communications Protocols: Ascii
Diagnostic Features: Local
Distribution Method: End user, OEM, Third-party

EMULEX CORP.
CS11-V
Multiplexer Class: Statistical
Input Interface: RS-232C
Maximum Input Channels:
Synchronous: 32
Asynchronous: 32
Transmission Mode: Half-Duplex, Full-Duplex
Input Transmission Rates: Asynchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps, 19,200 bps, Synchronous - External Clock
Maximum Output Lines:
Synchronous: 32
Asynchronous: 32
Output Transmission Mode: Half-Duplex, Full-Duplex
Output Line Transmission Rates: Asynchronous/Synchronous - 1,200 bps, 2,400 bps, 4,800 bps, 9,600 bps, Asynchronous - 1,800 bps, 14,400 bps, External Clock
Communications Protocols: BSC, Ascii
Diagnostic Features: Local
Distribution Method: End user, OEM, Third-party

EMULEX CORP.
CS21-F
Multiplexer Class: Statistical
Input Interface: RS-232C, Current Loop
Maximum Input Channels:
Synchronous: 19
Transmission Mode: Full-Duplex
Input Transmission Rates: Asynchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps, 19,200 bps
Maximum Output Lines:
Synchronous: 19
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates: Asynchronous - 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps, 14,400 bps
Communications Protocols: Ascii
Diagnostic Features: Local
Distribution Method: End user, OEM, Third-party

EMULEX CORP.
CS21-H
Multiplexer Class: Statistical
Input Interface: RS-232C, Current Loop
Maximum Input Channels:
Synchronous: 19
Transmission Mode: Full-Duplex
Input Transmission Rates: Asynchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps, 19,200 bps
Maximum Output Lines:
Synchronous: 19
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates: Asynchronous - 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps, 14,400 bps
Communications Protocols: Ascii
Diagnostic Features: Local
Distribution Method: End user, OEM, Third-party

EMULEX CORP.
CS21-U
Multiplexer Class: Statistical
Input Interface: RS-232C, Current Loop
Maximum Input Channels:
Synchronous: 19
Transmission Mode: Full-Duplex
Input Transmission Rates: Asynchronous - 50 bps, 75 bps, 110 bps, 600 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps, 19,200 bps
Maximum Output Lines:
Synchronous: 19
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates: Asynchronous - 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps, 14,400 bps
Communications Protocols: Ascii
Diagnostic Features: Local
Distribution Method: End user, OEM, Third-party

EMULEX CORP.
CS21-Z
Multiplexer Class: Statistical
Input Interface: RS-232C, Current Loop
Maximum Input Channels:
Synchronous: 16
Transmission Mode: Full-Duplex
Input Transmission Rates: Asynchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps, 19,200 bps
Maximum Output Lines:
Synchronous: 16
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates: Asynchronous - 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps, 14,400 bps
Communications Protocols: Ascii
Diagnostic Features: Local
Distribution Method: End user, OEM, Third-party

EMULEX CORP.
CSM11-MH
Multiplexer Class: Statistical
Input Interface: RS-232C, Current Loop
Maximum Input Channels:
Synchronous: 64
Transmission Mode: Half-Duplex, Full-Duplex
Input Transmission Rates: Asynchronous - 50 bps, 75 bps, 110 bps, 600 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps, 19,200 bps
Maximum Output Lines:
Asynchronous: 19
Output Transmission Mode: Half-Duplex, Full-Duplex
Output Line Transmission Rates: Synchronous - 2,400 bps, 4,800 bps, 9,600 bps
Features: Automatic Speed Detection (Autobaud), Downline Loading (On-Line Reconfiguration), Automatic Repeat Request
Diagnostic Features: Remote, Local
Distribution Method: End user, OEM, Third-party

EMULEX CORP.
CSM11-MU
Multiplexer Class: Statistical
Input Interface: RS-232C, Current Loop
Maximum Input Channels:
Synchronous: 64
Transmission Mode: Half-Duplex, Full-Duplex
Input Transmission Rates: Asynchronous - 50 bps, 75 bps, 110 bps, 600 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps, 19,200 bps
Maximum Output Lines:
Asynchronous: 16
Output Transmission Mode: Half-Duplex, Full-Duplex
Output Line Transmission Rates: Synchronous - 2,400 bps, 4,800 bps, 9,600 bps
Features: Automatic Speed Detection (Autobaud), Downline Loading (On-Line Reconfiguration), Automatic Repeat Request
Diagnostic Features: Remote, Local
Distribution Method: End user, OEM, Third-party

EMULEX CORP.
CSM21-MU
Multiplexer Class: Statistical
Input Interface: RS-232C, Current Loop
Maximum Input Channels:
Synchronous: 32
Transmission Mode: Half-Duplex, Full-Duplex
Input Transmission Rates: Asynchronous - 50 bps, 75 bps, 110 bps, 600 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps, 19,200 bps
Maximum Output Lines:
Asynchronous: 16
Output Transmission Mode: Half-Duplex, Full-Duplex
Output Line Transmission Rates: Synchronous - 2,400 bps, 4,800 bps, 9,600 bps
Features: Automatic Speed Detection (Autobaud), Downline Loading (On-Line Reconfiguration), Automatic Repeat Request
Diagnostic Features: Remote, Local
Distribution Method: End user, OEM, Third-party

EMULEX CORP.
CSM21-MZ
Multiplexer Class: Statistical
Input Interface: RS-232C, Current Loop
Maximum Input Channels:
Synchronous: 32
Transmission Mode: Full-Duplex
Input Transmission Rates: Asynchronous - 50 bps, 75 bps, 110 bps, 600 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 4,600 bps, 19,200 bps
Maximum Output Lines:
Asynchronous: 19
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates: Synchronous - 2,400 bps, 4,800 bps, 9,600 bps
Features: Automatic Speed Detection (Autobaud), Downline Loading (On-Line Reconfiguration), Automatic Repeat Request
Diagnostic Features: Remote, Local
Distribution Method: End user, OEM, Third-party

EMULEX CORP.
CSM21-NH
Multiplexer Class: Statistical
Input Interface: RS-232C, Current Loop
Maximum Input Channels:
Synchronous: 32
Transmission Mode: Half-Duplex, Full-Duplex
Input Transmission Rates: Asynchronous - 50 bps, 75 bps, 110 bps, 600 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 4,600 bps, 9,600 bps, 19,200 bps
Maximum Output Lines:
Asynchronous: 19
Output Transmission Mode: Half-Duplex, Full-Duplex
Output Line Transmission Rates: Synchronous - 2,400 bps, 4,800 bps, 9,600 bps
Features: Automatic Speed Detection (Autobaud), Downline Loading (On-Line Reconfiguration), Automatic Repeat Request
Diagnostic Features: Remote, Local
Distribution Method: End user, OEM, Third-party

ERICSSON PROGMATIC, INC.
1111
Multiplexer Class: Statistical
Input Interface: RS-232C
Maximum Input Channels:
Synchronous: 1
Transmission Mode: Full-Duplex, Echoplex
Input Transmission Rates: Asynchronous - 50 bps, 75 bps, 110 bps, 600 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps
Aggregate Transmission Rate: 96 bps
Maximum Output Lines:
Asynchronous: 1
Output Transmission Mode: Full-Duplex, Echoplex
Output Line Transmission Rates: Synchronous - 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps
Communications Protocols: HDLC (CCITT X.205 Level 2)
Features: Automatic Speed

Detection (Autobaud), Protocol Conversion, Downline Loading (On-Line Reconfiguration), Automatic Repeat Request
Diagnostic Features: Local
Distribution Method: End user
Price: $990
Number Installed to Date: Under 100
(See Vendor Profile Page V-11)

ERICSSON PROGMATIC, INC. 1110
Multiplexer Class: Statistical
Input Interface: RS-232C
Maximum Input Channels:
Synchronous: 2
Transmission Mode: Full-Duplex, Echoplex
Input Transmission Rates:
Asynchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps
Aggregate Transmission Rate: 96 bps
Maximum Output Lines:
Asynchronous: 1
Output Transmission Mode: Full-Duplex, Echoplex
Output Line Transmission Rates:
Synchronous - 1,200 bps, 1,800 bps, 2,400 bps, 4,900 bps, 9,600 bps
Communications Protocols: HDLC (CCITT X.205 Level 2)
Features: Automatic Speed Detection (Autobaud), Protocol Conversion, Downline Loading (On-Line Reconfiguration), Automatic Repeat Request
Diagnostic Features: Local
Distribution Method: End user
Price: $1,140
Number Installed to Date: Under 100

ERICSSON PROGMATIC, INC. 1114
Multiplexer Class: Statistical
Input Interface: RS-232C
Maximum Input Channels:
Synchronous: 4
Asynchronous: 1
Transmission Mode: Full-Duplex, Echoplex
Input Transmission Rates:
Asynchronous/Synchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps;2,400 bps, 3,600 bps, 4,800 bps;
Asynchronous - 7,200 bps, 9,600 bps
Aggregate Transmission Rate: 96 bps
Maximum Output Lines:
Asynchronous: 1
Output Transmission Mode: Full-Duplex, Echoplex
Output Line Transmission Rates:
Synchronous - 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps
Communications Protocols: HDLC (CCITT X.205 Level 2)
Features: Automatic Speed Detection (Autobaud), Protocol Conversion, Downline Loading (On-Line Reconfiguration), Automatic Repeat Request
Diagnostic Features: Local
Distribution Method: End user
Price: $1,510
Number Installed to Date: Under 100

ERICSSON PROGMATIC, INC. 1118
Multiplexer Class: Statistical
Input Interface: RS-232C
Maximum Input Channels:
Synchronous: 8
Asynchronous: 1
Transmission Mode: Full-Duplex, Echoplex
Input Transmission Rates:
Asynchronous/Synchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,800 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps;
Asynchronous - 7,200 bps, 9,600 bps
Aggregate Transmission Rate: 96 bps
Maximum Output Lines:
Asynchronous: 1
Output Transmission Mode: Full-Duplex, Echoplex
Output Line Transmission Rates:
Synchronous - 1,800 bps, 1,800 bps, 2,400 bps, 4,900 bps, 9,600 bps
Communications Protocols: HDLC (CCITT X.205 Level 2)
Features: Automatic Speed Detection (Autobaud), Protocol Conversion, Downline Loading (On-Line Reconfiguration), Automatic Repeat Request
Distribution Method: End user
Price: $2,150
Number Installed to Date: Under 100

FERRONICS INTERNATIONAL, INC. FM 614
Multiplexer Class: Fiber-Optic
Input Interface: RS-232C
Maximum Input Channels:
Synchronous: 16
Asynchronous: 4
Transmission Mode: Full-Duplex
Input Transmission Rates:
Asynchronous - 19,200 bps, Asynchronous/Synchronous - Up to 64,000 bps
Output Transmission Mode: Full-Duplex
Communications Protocols: Transparent to User
Features: Automatic Speed Detection (Autobaud), Polling
Diagnostic Features: Remote, Local
Price: $2,000 to $2,800
Date First Installed: 1981
Number Installed to Date: Under 100
(See Vendor Profile Page V-12)

FERRONICS INTERNATIONAL, INC. FM 618
Multiplexer Class: Fiber-Optic
Input Interface: RS-232C, CCITT V.24/V.28
Maximum Input Channels:
Synchronous: 16
Asynchronous: 8
Transmission Mode: Full-Duplex
Input Transmission Rates:
Asynchronous - 19,200 bps; Asynchronous/Synchronous - Up to 64,000 bps
Output Transmission Mode: Full-Duplex
Communications Protocols: Transparent to User
Features: Automatic Speed Detection (Autobaud), Polling
Diagnostic Features: Remote, Local
Distribution Method: End user
Price: $3,300 to $4,900
Date First Installed: 1981
Number Installed to Date: Under 100

FERRONICS INTERNATIONAL, INC. FM 632
Multiplexer Class: Fiber-Optic
Input Interface: RS-232C, RS-422, CCITT V.24/V.28, V 35,T-1,RS-449
Maximum Input Channels:
Synchronous: 128
Asynchronous: 32
Transmission Mode: Full-Duplex
Input Transmission Rates:
Asynchronous - 19,800 bps; Synchronous - Up to 64,000 bps
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates:
Asynchronous - T-1
Communications Protocols: Transparent to User
Features: Polling
Diagnostic Features: Remote, Local
Distribution Method: End user
Price: $5,400 to $15,000
Date First Installed: 1983
Number Installed to Date: Under 100

FERRONICS INTERNATIONAL, INC. FM 1608
Multiplexer Class: Fiber-Optic
Input Interface: IBM 3270, ITT
Maximum Input Channels:
Synchronous: 8
Transmission Mode: Full-Duplex
Input Transmission Rates:
Asynchronous - 23,580 bps
Output Transmission Mode: Full-Duplex
Communications Protocols: IBM 3270, ITT, Raytheon
Features: Polling
Diagnostic Features: Remote, Local
Distribution Method: End user
Price: $1,800 to $2,200
Date First Installed: 1983
Number Installed to Date: Under 100

FERRONICS INTERNATIONAL, INC. FM 1632
Multiplexer Class: Fiber-Optic
Maximum Input Channels:
Synchronous: 32
Transmission Mode: Full-Duplex
Input Transmission Rates:
Asynchronous - 23,580 bps
Output Transmission Mode: Half-Duplex
Communications Protocols: IBM 3270, ITT, Raytheon
Features: Polling, Fiber Optic or Coaxial Link
Diagnostic Features: Remote, Local
Distribution Method: End user
Price: $1,825 to $4,900
Date First Installed: 1982
Number Installed to Date: 100 - 500

FRIEDMAN ASSOCIATES DATAGRAM DM208
Multiplexer Class: Statistical
Input Interface: RS-232C
Maximum Input Channels:
Synchronous: 8
Transmission Mode: Full-Duplex
Input Transmission Rates:
Asynchronous - 110 bps, 300 bps, 9,400 bps, 4,800 bps, 9,800 bps
Aggregate Transmission Rate: 768 bps
Maximum Output Lines:
Synchronous: 1
Asynchronous: 1
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates:
Asynchronous - 14,400 bps
Communications Protocols: HDLC (CCITT X.25 Level 2)
Features: Automatic Speed Detection (Autobaud), Data Compression, Downline Loading (On-Line Reconfiguration), Polling, Port Contention, Flow Control
Diagnostic Features: Local
Distribution Method: End user
Price: $1,550 to $2,750
Date First Installed: January 1982
(See Vendor Profile Page V-12)

FRIEDMAN ASSOCIATES DATAGRAM DM1600
Multiplexer Class: Statistical
Input Interface: RS-232C
Maximum Input Channels:
Synchronous: 16
Transmission Mode: Full-Duplex
Input Transmission Rates:
Asynchronous - 110 bps, 300 bps, 600 bps, 1,200 bps, 2,400 bps, 4,800 bps, 9,800 bps
Aggregate Transmission Rate: 540 bps
Maximum Output Lines:
Synchronous: 16
Asynchronous: 1
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates:
Synchronous - 2,400 bps, 4,800 bps, 9,600 bps
Communications Protocols: HDLC (CCITT X.205 Level 2)
Features: Automatic Speed Detection (Autobaud), Downline Loading (On-Line Reconfiguration), Port Contention, Operational and Statistical Reports, Flow Control
Diagnostic Features: Local
Distribution Method: End user
Price: $2,900 to $5,000
Date First Installed: January 1981

FRIEDMAN ASSOCIATES DATAGRAM DM4800
Multiplexer Class: Statistical
Input Interface: RS-232C
Maximum Input Channels:
Synchronous: 52
Transmission Mode: Full-Duplex

Multiplexers

Input Transmission Rates: Asynchronous - 110 bps, 300 bps, 600 bps, 1,200 bps, 2,400 bps, 4,800 bps, 9,600 bps
Aggregate Transmission Rate: 540 bps
Maximum Output Lines:
Synchronous: 56
Asynchronous: 1
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates: Synchronous - 2,400 bps, 4,800 bps
Communications Protocols: HDLC (CCITT X.205 Level 2)
Features: Automatic Speed Detection (Autobaud), Downline Loading (On-Line Reconfiguration), Port Contention, Flow Control
Diagnostic Features: Local
Distribution Method: End user
Price: $3,600 to $13,200
Date First Installed: June 1981

FRIEDMAN ASSOCIATES
NEC STAT MUX
Multiplexer Class: Statistical
Input Interface: RS-232C
Maximum Input Channels:
Synchronous: 8
Transmission Mode: Full-Duplex
Input Transmission Rates: Synchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps, 19,200 bps
Maximum Output Lines:
Asynchronous: 2
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates: Synchronous - 9,600 bps
Communications Protocols: HDLC (CCITT X.205 Level 2)
Features: Automatic Speed Detection (Autobaud), Data Compression, Downline Loading (On-Line Reconfiguration), Automatic Repeat Request, Polling, Port Contention, Switching, Flow Control
Diagnostic Features: Local
Distribution Method: End user
Price: $35,000
Date First Installed: April 1982

FUJITSU AMERICA, INC.
F 1981A
Multiplexer Class: Statistical
Input Interface: RS-232C
Maximum Input Channels:
Synchronous: 16
Asynchronous: 16
Transmission Mode: Echoplex
Input Transmission Rates: Asynchronous/Synchronous - 75 bps, 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps
Aggregate Transmission Rate: 1,530 bps
Maximum Output Lines:
Asynchronous: 2
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates: Synchronous - 19,200 bps
Communications Protocols: SDLC
Features: Automatic Speed Detection (Autobaud), Data Compression, Downline Loading (On-Line Reconfiguration), Automatic Repeat Request, Flyback Buffering Delay, Operational and Statistical Reports, Flow Control, Programmable, Network Monitor, LCD Display; Prompting Protocol Configuration
Diagnostic Features: Remote, Local
Distribution Method: OEM
Date First Installed: October 1983
Number Installed to Date: 10
Number Installed to Date: Under 100
(See Vendor Profile Page V-12)

GANDALF DATA, INC.
PIN 9101 E
Multiplexer Class: Statistical
Input Interface: RS-232C, CCITT V.24/V.28
Maximum Input Channels:
Synchronous: 16
Transmission Mode: Half-Duplex, Full-Duplex, Echoplex
Input Transmission Rates: Asynchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,200 bps, 1,200 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps
Aggregate Transmission Rate: 576 bps
Maximum Output Lines:
Asynchronous: 1
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates: Synchronous - 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps, 14,400 bps
Communications Protocols: HDLC (CCITT X.205 Level 2), CCITT X.25 (Level 3), Ascii
Features: Automatic Speed Detection (Autobaud), Downline Loading (On-Line Reconfiguration), Automatic Repeat Request, Flyback Buffering Delay, Port Contention, Switching, Operational and Statistical Reports, Flow Control, Programmable, Supports HP ENQ/ACK Protocol
Diagnostic Features: Local
Distribution Method: End user
Price: $2,650 to $5,750
Date First Installed: 1981
Number Installed to Date: Under 100
(See Vendor Profile Page V-12)

GANDALF DATA, INC.
PIN 9103
Multiplexer Class: Statistical
Input Interface: RS-232C, CCITT V.24/V.28
Maximum Input Channels:
Synchronous: 32
Transmission Mode: Half-Duplex, Full-Duplex, Echoplex
Input Transmission Rates: Asynchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,200 bps, 1,200 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps
Aggregate Transmission Rate: 768 bps
Maximum Output Lines:
Asynchronous: 1
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates: Synchronous - 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps, 14,400 bps
Communications Protocols: HDLC (CCITT X.205 Level 2)
Features: Automatic Speed Detection (Autobaud), Downline Loading (On-Line Reconfiguration), Automatic Repeat Request, Operational and Statistical Reports, Flow Control, Programmable, Priority Channel Assign
Diagnostic Features: Local
Distribution Method: End user
Price: $1,650 to $7,150
Date First Installed: 1979
Number Installed to Date: 500 - 1,000

GANDALF DATA, INC.
PIN 9106
Multiplexer Class: Statistical
Input Interface: RS-232C, CCITT V.24/V.28
Maximum Input Channels:
Synchronous: 4
Transmission Mode: Half-Duplex, Full-Duplex
Input Transmission Rates: Asynchronous - 110 bps, 300 bps, 600 bps, 1,200 bps, 2,400 bps, 4,800 bps, 9,600 bps
Aggregate Transmission Rate: 192 bps
Maximum Output Lines:
Asynchronous: 1
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates: Synchronous - 9,600 bps
Communications Protocols: SDLC
Features: Automatic Speed Detection (Autobaud), Data Compression, Downline Loading (On-Line Reconfiguration), Automatic Repeat Request, Flow Control, Built-in for Test Pattern Generation
Diagnostic Features: Remote, Local
Distribution Method: End user
Price: $825 to $1,095
Date First Installed: 1983
Number Installed to Date: Under 100

GANDALF DATA, INC.
GLM 504
Multiplexer Class: TDM
Input Interface: RS-232C, CCITT V.24/V.28
Maximum Input Channels:
Asynchronous: 4
Transmission Mode: Half-Duplex, Full-Duplex
Aggregate Transmission Rate: bps
Maximum Output Lines:
Asynchronous: 1
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates: Synchronous - 56,000 bps, Asynchronous/Synchronous - Up to 64K bps
Features: EIA Signal Throughput
Diagnostic Features: Remote, Local
Distribution Method: End user
Price: $1,550
Date First Installed: 1981
Number Installed to Date: Under 100

GANDALF DATA, INC.
LINE MISER-MUX4/MUX8
Multiplexer Class: TDM
Input Interface: RS-232C
Maximum Input Channels:
Synchronous: 8
Transmission Mode: Half-Duplex, Full-Duplex
Input Transmission Rates: Asynchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps
Aggregate Transmission Rate: 384 bps
Maximum Output Lines:
Asynchronous: 1
Output Transmission Mode: Full-Duplex
Features: Port Contention, Switching
Diagnostic Features: Remote, Local
Distribution Method: End user
Price: $650 to $850
Date First Installed: January 1984
Number Installed to Date: Under 100

GANDALF DATA, INC.
LINE MISER-T1 MUX
Multiplexer Class: Wideband (T-1)
Input Interface: RS-232C
Maximum Input Channels:
Synchronous: 128
Transmission Mode: Half-Duplex, Full-Duplex
Input Transmission Rates: Asynchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps, 19,200 bps
Aggregate Transmission Rate: 3,072 bps
Maximum Output Lines:
Asynchronous: T-1
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates: Asynchronous - T-1
Communications Protocols: Bipolar RTZ
Features: Flow Control, Synchronous to PBX, Transparent
Diagnostic Features: Remote, Local
Distribution Method: End user
Price: $3,200
Number Installed to Date: Under 100

GANDALF DATA, INC.
LINE MISER-T1 MUX
Multiplexer Class: Wideband (T-1)
Input Interface: RS-232C
Maximum Input Channels:
Synchronous: 128
Transmission Mode: Half-Duplex, Full-Duplex
Input Transmission Rates: Asynchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps, 19,200 bps

Aggregate Transmission Rate: 3,072 bps
Maximum Output Lines:
Asynchronous: T-1
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates: Asynchronous - T-1
Communications Protocols: Bipolar RTZ
Features: Flow Control, Synchronous to PABX, Transparent
Diagnostic Features: Remote, Local
Distribution Method: End user
Price: $3,200
Number Installed to Date: Under 100

GENCOM/P, INC.
ASYNCHRONOUS MULTIPLEXER MODEL 2033
Multiplexer Class: TDM
Input Interface: RS-232C, Current Loop
Maximum Input Channels:
Synchronous: 128
Transmission Mode: Full-Duplex
Input Transmission Rates: Asynchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps, 19,200 bps
Aggregate Transmission Rate: 1.536 bps
Output Line Transmission Rates: Asynchronous - Direct Connect to PDP-11
Communications Protocols: Ascii
Diagnostic Features: No
Distribution Method: OEM
Price: $1,000 to $3,000
Date First Installed: 1979
Number Installed to Date: 500 - 1,000
(See Vendor Profile Page V-13)

GENCOM/P, INC.
ASYNCHRONOUS MULTIPLEXER MODEL 2036
Multiplexer Class: TDM
Input Interface: RS-232C, Current Loop
Maximum Input Channels:
Synchronous: 128
Transmission Mode: Full-Duplex, Echoplex
Input Transmission Rates: Asynchronous - 75 bps, 110 bps, 300 bps, 600 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps, 19,200 bps, 134.5M bps, 150M bps
Aggregate Transmission Rate: 1,500 bps
Output Line Transmission Rates: Asynchronous - Direct Connect to PDP-11
Communications Protocols: Ascii
Diagnostic Features: Local
Distribution Method: End user
Price: $2,000 to $3,000
Number Installed to Date: Under 100

GENCOM/P, INC.
ASYNCHRONOUS MULTIPLEXER MODEL 2133
Multiplexer Class: TDM
Input Interface: RS-232C
Maximum Input Channels:
Synchronous: 128
Transmission Mode: Full-Duplex
Input Transmission Rates: Asynchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,800 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps, 19,200 bps, 134.5M bps, 150M bps
Aggregate Transmission Rate: 500 bps
Output Line Transmission Rates: Asynchronous - Direct Connect to LSI
Communications Protocols: Ascii
Diagnostic Features: Local
Distribution Method: OEM
Price: $900
Date First Installed: March 1983
Number Installed to Date: Under 100

GENCOM/P, INC.
ASYNCHRONOUS MULTIPLEXER MODEL 2126
Multiplexer Class: TDM
Input Interface: RS-232C, Current Loop
Maximum Input Channels:
Synchronous: 128
Transmission Mode: Full-Duplex, Echoplex
Input Transmission Rates: Asynchronous - 75 bps, 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps, 19,600 bps, 134.5M bps, 150M bps, 38.4K bps
Aggregate Transmission Rate: 1,500 bps
Output Line Transmission Rates: Asynchronous - Direct Connect to LSI-11
Communications Protocols: Ascii
Diagnostic Features: Local
Distribution Method: OEM
Price: $2,000 to $3,000
Number Installed to Date: Under 100

GENERAL DATACOMM INDUSTRIES, INC.
GENNET 1261
Multiplexer Class: Network Concentrator
Input Interface: RS-232C, CCITT V.24/V.28
Maximum Input Channels:
Synchronous: 9
Transmission Mode: Half-Duplex, Echoplex
Input Transmission Rates: Asynchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,800 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps
Aggregate Transmission Rate: 96 bps
Maximum Output Lines:
Asynchronous: 1
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates: Asynchronous/Synchronous - Up to 19,200 bps
Communications Protocols: HDLC (CCITT X.205 Level 2)
Features: Automatic Speed Detection (Autobaud), Downline Loading (On-Line Reconfiguration), Automatic Repeat Request, Flow Control
Diagnostic Features: Remote, Local
Distribution Method: Third-party
Price: $1,400 to $2,200
Date First Installed: December 1983
Number Installed to Date: Under 100
(See Vendor Profile Page V-12)

GENERAL DATACOMM INDUSTRIES, INC.
GENNET 1262
Multiplexer Class: Network Concentrator
Input Interface: RS-232C, RS-422, RS-423, CCITT V.24/V.28, V.10, V.11
Maximum Input Channels:
Synchronous: 96
Asynchronous: 96
Transmission Mode: Full-Duplex, Echoplex
Input Transmission Rates: Asynchronous - 50 bps to 19,200 bps
Aggregate Transmission Rate: 780 bps
Maximum Output Lines:
Asynchronous: 4
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates: Asynchronous/Synchronous - 256,000 bps
Communications Protocols: HDLC (CCITT X.205 Level 2)
Features: Automatic Speed Detection (Autobaud), Downline Loading (On-Line Reconfiguration), Automatic Repeat Request, Operational and Statistical Reports, Flow Control, Programmable, Network Monitor, Split Rates, Intelligent Front Panel
Diagnostic Features: Remote, Local
Distribution Method: End user
Date First Installed: June 1983
Number Installed to Date: Under 100

GENERAL DATACOMM INDUSTRIES, INC.
MEGAMUX (TDM 1267/1268)
Multiplexer Class: TDM
Input Interface: RS-232C, RS-422, RS-423, CCITT V.24/V.28, MIL 188C, CCITT V.703
Maximum Input Channels:
Synchronous: 54
Asynchronous: 54
Transmission Mode: Full-Duplex
Input Transmission Rates: Asynchronous - 50 bps, 75 bps, 110 bps, Asynchronous/Synchronous - 300 bps, 600 bps, 1,800 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps; Synchronous - 19,200 bps
Aggregate Transmission Rate: 20,400 bps
Maximum Output Lines:
Synchronous: 1
Asynchronous: 1
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates: Asynchronous - 256,000 bps
Features: Automatic Speed Detection (Autobaud), Network Monitor, Fiber-Optic Aggregate Interface
Diagnostic Features: Remote, Local
Distribution Method: End user
Price: $6,000 to $35,000
Date First Installed: June 1981
Number Installed to Date: 600 - 1,000

GENERAL DATACOMM INDUSTRIES, INC.
TDM 1200 SERIES
Multiplexer Class: TDM
Input Interface: RS-232C, CCITT V.24/V.28
Maximum Input Channels:
Synchronous: 4
Transmission Mode: Full-Duplex
Input Transmission Rates: Asynchronous - 150 bps, 300 bps, 1,200 bps, 2,400 bps, 4,800 bps, 9,600 bps
Aggregate Transmission Rate: 96 bps
Maximum Output Lines:
Asynchronous: 1
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates: Synchronous - 1,200 bps, 2,400 bps, 4,800 bps, 9,600 bps
Communications Protocols: Ascii
Diagnostic Features: Local
Distribution Method: End user
Price: $995 to $1,295
Date First Installed: April 1981
Number Installed to Date: 1,000 - 5,000

GTE NETWORK SYSTEMS
9894 A/B
Multiplexer Class: Statistical Multiplexer
Maximum Input Channels:
Synchronous: 24
Transmission Mode: Full-Duplex
Input Transmission Rates: Synchronous - 4,800 bps, 56,000 bps
Aggregate Transmission Rate: 1.3K bps
Maximum Output Lines: 1
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates: 1.5K bps
Features: Network Monitor
Diagnostic Features: Remote, Local
Distribution Method: End user
Price: $15,000
Date First Installed: June 1983
Number Installed to Date: Under 600
(See Vendor Profile Page V-13)

HALCYON COMMUNICATIONS
4001
Multiplexer Class: Statistical
Input Interface: RS-232C
Maximum Input Channels:
Synchronous: 32
Transmission Mode: Echoplex
Input Transmission Rates: Synchronous - 50 bps, 9,600 bps
Aggregate Transmission Rate: 48 bps

Multiplexers

Maximum Output Lines:
Asynchronous: 1
Other: Split Link
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates: Synchronous - 9,600 bps
Communications Protocols: HDLC (CCITT X.205 Level 2)
Features: Automatic Speed Detection (Autobaud), Downline Loading (On-Line Reconfiguration), Automatic Repeat Request, Flyback Buffering Delay, Operational and Statistical Reports, Programmable, Network Monitor, Remote Term Control
Diagnostic Features: Remote, Local
Distribution Method: End user
Price: $1,700 to $4,100
Date First Installed: 1982
Number Installed to Date: Under 100
(See Vendor Profile Page V-13)

HALCYON COMMUNICATIONS
4220
Multiplexer Class: Statistical
Input Interface: RS-232C
Maximum Input Channels:
Synchronous: 60
Asynchronous: 60
Transmission Mode: Echoplex
Input Transmission Rates: Asynchronous/Synchronous - 50 bps, 9,600 bps
Aggregate Transmission Rate: 48 bps
Maximum Output Lines:
Synchronous: 2
Asynchronous: 1
Other: Split Link
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates: Synchronous - 9,600 bps
Communications Protocols: HDLC (CCITT X.205 Level 2)
Features: Automatic Speed Detection (Autobaud), Data Compression, Downline Loading (On-Line Reconfiguration), Automatic Repeat Request, Flyback Buffering Delay, Polling, Operational and Statistical Reports, Programmable, Network Monitor, Executive Port Option, Port Monitor
Diagnostic Features: Remote, Local
Distribution Method: End user
Price: $3,800 to $6,500
Date First Installed: 1982
Number Installed to Date: Under 100

IBM
3299
Multiplexer Class: Terminal Multiplexer
Maximum Input Channels:
Synchronous: 8
Maximum Output Lines:
Synchronous: 1
(See Vendor Profile Page V-14)

INFINET, INC.
IDX400
Multiplexer Class: TDM
Input Interface: RS-232C
Maximum Input Channels:
Asynchronous: 4
Transmission Mode: Full-Duplex
Input Transmission Rates: Synchronous - 1,200 bps, 2,400 bps, 4,800 bps
Aggregate Transmission Rate: 48 bps
Maximum Output Lines:
Asynchronous: 1
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates: Synchronous - 4,800 bps
Features: Programmable
Diagnostic Features: No
Distribution Method: End user
Price: $300
Number Installed to Date: 1,000 - 5,000
(See Vendor Profile Page V-15)

INFINET, INC.
MX400
Multiplexer Class: TDM
Input Interface: RS-232C
Maximum Input Channels:
Asynchronous: 4
Transmission Mode: Full-Duplex
Input Transmission Rates: Synchronous - 2,400 bps, 4,800 bps, 7,200 bps, 9,600 bps
Aggregate Transmission Rate: 96 bps
Maximum Output Lines:
Asynchronous: 1
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates: Synchronous - 9,600 bps
Features: Programmable, Tracks Fallback Rate of Modem
Diagnostic Features: No
Distribution Method: End user
Price: $800
Number Installed to Date: 100 - 900

INFINET, INC.
MX800
Multiplexer Class: TDM
Input Interface: RS-232C
Maximum Input Channels:
Asynchronous: 8
Transmission Mode: Full-Duplex
Input Transmission Rates: Synchronous - 2,400 bps, 4,800 bps, 7,200 bps, 9,600 bps; Asynchronous/Synchronous - 14,400 bps, 120,000 bps
Aggregate Transmission Rate: 144 bps
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates: Synchronous - 19,200 bps
Communications Protocols: HDLC (CCITT X.205 Level 2), SDLC, BSC
Features: Programmable
Diagnostic Features: No
Distribution Method: End user
Price: $1,000
Number Installed to Date: Under 100

INFOTRON SYSTEMS CORP.
760 NETWORK CONCENTRATOR
Multiplexer Class: Network Concentrator
Input Interface: RS-232C, CCITT V.24/V.28
Input Transmission Rates: Asynchronous/Synchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps
Aggregate Transmission Rate: 3,072 bps
Communications Protocols: BSC, Ascii
Features: Automatic Speed Detection (Autobaud), Switching, Flow Control
Diagnostic Features: Remote, Local
Price: $4,500 to $7,800
(See Vendor Profile Page V-16)

INFOTRON SYSTEMS CORP.
384/480 WITH 760NC OR 762NC
Multiplexer Class: Network Concentrator
Maximum Input Channels:
Asynchronous: 9
Transmission Mode: Full-Duplex
Input Transmission Rates: Asynchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps, 134.5M bps, 200M bps
Aggregate Transmission Rate: 768 bps
Maximum Output Lines:
Asynchronous: 3
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates: Asynchronous/Synchronous - Up to 9,600 bps
Communications Protocols: SDLC, Ascii, Baudot
Features: Automatic Repeat Request, Port Contention, Switching, Flow Control
Price: $1,200

INFOTRON SYSTEMS CORP.
384/480 WITH 760NC OR 762NC
Multiplexer Class: Network Concentrator
Maximum Input Channels:
Asynchronous: 19
Input Transmission Rates: Asynchronous/Synchronous - 9,600 bps
Aggregate Transmission Rate: 384 bps
Features: Port Contention, Switching, Flow Control
Price: $1,200

INFOTRON SYSTEMS CORP.
SUPERMUX 750
Multiplexer Class: Network Concentrator
Input Interface: RS-232C, CCITT V.24/V.28
Maximum Input Channels:
Synchronous: 640
Asynchronous: 640
Transmission Mode: Half-Duplex, Full-Duplex
Input Transmission Rates: Asynchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, Asynchronous/Synchronous - 1,800 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps
Aggregate Transmission Rate: 384 bps
Maximum Output Lines:
Asynchronous: 15
Output Transmission Mode: Half-Duplex, Full-Duplex
Output Line Transmission Rates: Asynchronous/Synchronous - 72,000 bps
Features: Downline Loading (On-Line Reconfiguration), Port Contention, Switching, Flow Control, Network Monitor, Optional ANM 600 Network Monitor
Diagnostic Features: Local
Price: $4,600 to $7,100

INFOTRON SYSTEMS CORP.
SUPERMUX 300 STAT MUX
Multiplexer Class: Statistical
Input Interface: RS-232C, CCITT V.24/V.28, DB-25-P
Maximum Input Channels:
Synchronous: 8
Transmission Mode: Half-Duplex, Full-Duplex
Input Transmission Rates: Synchronous - Up to 9,600 bps
Aggregate Transmission Rate: 768 bps
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates: Synchronous - 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps, 14,400 bps
Communications Protocols: SDLC
Features: Automatic Speed Detection (Autobaud), Downline Loading (On-Line Reconfiguration), Flow Control, Programmable
Diagnostic Features: Remote, Local
Price: $1,375 to $1,750

INFOTRON SYSTEMS CORP.
SUPERMUX 480 STAT MUX
Multiplexer Class: Statistical
Input Interface: RS-232C, 20 mA or 60 mA Current Loop
Maximum Input Channels:
Synchronous: 8
Input Transmission Rates: Asynchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,800 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps
Aggregate Transmission Rate: 768 bps
Output Line Transmission Rates: Synchronous - 2,400 bps, 4,800 bps; Asynchronous/Synchronous - Up to 9,600 bps
Communications Protocols: HDLC (CCITT X.205 Level 2), SDLC
Features: Automatic Speed Detection, Downline Loading (On-Line Reconfiguration), Automatic Repeat Request, Flow Control
Diagnostic Features: Local
Price: $1,900 to $6,000

INFOTRON SYSTEMS CORP.
SUPERMUX 810
Multiplexer Class: Statistical
Input Interface: RS-232C, CCITT V.24/V.28
Maximum Input Channels:
Synchronous: 16
Asynchronous: 16
Input Transmission Rates: Asynchronous/Synchronous - 50

bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,800 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps, Synchronous - 50 bps to 9,600 bps
Aggregate Transmission Rate: 192 bps
Maximum Output Lines:
Asynchronous: 1
Features: Automatic Speed Detection (Autobaud), Downline Loading (On-Line Reconfiguration), Port Contention, Switching
Diagnostic Features: Remote, Local
Price: $5,500
Date First Installed: 1982

INFOTRON SYSTEMS CORP.
SUPERMUX 632
Multiplexer Class: Statistical
Input Interface: RS-232C, CCITT V.24/V.28
Maximum Input Channels:
Synchronous: 32
Asynchronous: 32
Input Transmission Rates: Asynchronous/Synchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps
Aggregate Transmission Rate: 192 bps
Features: Automatic Speed Detection (Autobaud), Downline Loading (On-Line Reconfiguration), Port Contention, Switching
Diagnostic Features: Remote, Local
Price: $9,000
Date First Installed: 1982

INFOTRON SYSTEMS CORP.
SUPERMUX 660 STAT MUX
Multiplexer Class: Statistical
Input Interface: RS-232C, CCITT V.24/V.28
Maximum Input Channels:
Synchronous: 32
Asynchronous: 32
Transmission Mode: Half-Duplex
Input Transmission Rates: Asynchronous - 50 bps, 75 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps, 134.5M bps, 150M bps, Asynchronous/Synchronous - 110 bps, 300 bps, 600 bps, 1,200 bps
Aggregate Transmission Rate: 384 bps
Maximum Output Lines:
Asynchronous: 3
Output Transmission Mode: Half-Duplex
Output Line Transmission Rates: Synchronous - 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps, Asynchronous/Synchronous - Up to 9,600 bps
Communications Protocols: HDLC (CCITT X.205 Level 2), SDLC
Features: Automatic Speed Detection (Autobaud), Downline Loading (On-Line Reconfiguration), Automatic Repeat Request, Flow Control
Diagnostic Features: Remote, Local
Price: $3,000 to $5,200

INFOTRON SYSTEMS CORP.
SUPERMUX 780 STAT MUX
Multiplexer Class: Statistical
Input Interface: RS-232C, CCITT V.24/V.28, DB-25-P
Maximum Input Channels:
Synchronous: 128
Asynchronous: 128
Input Transmission Rates: Asynchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 134.5M bps, 150M bps, Asynchronous/Synchronous - 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps
Aggregate Transmission Rate: 384 bps
Output Line Transmission Rates: Asynchronous/Synchronous - Up to 19,200 bps
Communications Protocols: HDLC (CCITT X.205 Level 2), SDLC
Features: Automatic Speed Detection (Autobaud), Data Compression
Diagnostic Features: Remote, Local
Price: $1,700

INFOTRON SYSTEMS CORP.
T1 MULTIPLEXER
Multiplexer Class: TDM
Input Interface: RS-232C
Maximum Input Channels:
Asynchronous: 48
Input Transmission Rates: Asynchronous/Synchronous - 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps, 19,200 bps
Output Line Transmission Rates: Asynchronous - T-1
Communications Protocols: HDLC (CCITT X.205 Level 2)
Diagnostic Features: Remote, Local
Distribution Method: End user
Price: $4,800

INFOTRON SYSTEMS CORP.
TIMELINE 180 MULTIPLEXER
Multiplexer Class: TDM
Input Interface: RS-232C, CCITT V.24/V.28, MIL 188C
Maximum Input Channels:
Synchronous: 1$
Input Transmission Rates: Synchronous - 37.5 bps to 9,600 bps
Aggregate Transmission Rate: 192 bps
Output Line Transmission Rates: Synchronous - 2,400 bps, 4,800 bps, 9,600 bps
Features: Automatic Speed Detection (Autobaud)
Diagnostic Features: Remote, Local
Price: $1,700
Date First Installed: 1975

INFOTRON SYSTEMS CORP.
TIMELINE 280 MULTIPLEXER
Multiplexer Class: TDM
Input Interface: RS-232C, CCITT V.24/V.28
Maximum Input Channels:
Asynchronous: 24
Input Transmission Rates: Asynchronous/Synchronous - Up to 19,200 bps
Aggregate Transmission Rate: 640 bps
Diagnostic Features: Local
Price: $1,800
Date First Installed: 1978

INFOTRON SYSTEMS CORP.
TIMELINE 280 MULTIPLEXER
Multiplexer Class: TDM
Input Interface: RS-232C, CCITT V.24/V.28
Maximum Input Channels:
Asynchronous: 4
Input Transmission Rates: Asynchronous/Synchronous - Up to 7,200 bps
Aggregate Transmission Rate: 96 bps
Diagnostic Features: Local
Price: $1,850
Date First Installed: 1978

INTEGRATED DESIGN ENGINEERING, INC.
IDE-2008A, -2008CA
Multiplexer Class: Concentrator
Input Interface: RS-232C
Maximum Input Channels:
Synchronous: 19
Transmission Mode: Half-Duplex, Echoplex
Input Transmission Rates: Asynchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps, 19,200 bps
Aggregate Transmission Rate: 192 bps
Maximum Output Lines:
Synchronous: 1
Output Transmission Mode: Half-Duplex, Full-Duplex
Output Line Transmission Rates: Asynchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps, 14,400 bps
Communications Protocols: Ascii, IDE Protocol
Features: Data Compression, Protocol Conversion, Flyback Buffering Delay, Port Contention, Switching, Programmable
Diagnostic Features: Local
Distribution Method: End user
Price: $1,600 to $6,850
Date First Installed: 1979
Number Installed to Date: 100 - 500
(See Vendor Profile Page V-16)

INTERACTIVE SYSTEMS/389
MODEL 6336 STAT MUX
Multiplexer Class: Statistical
Input Interface: RS-232C
Maximum Input Channels:
Synchronous: 32

Meet The Cordless Wonder

New mLDS 122
ASYNC SHORT-HAUL

- Requires no desk space
- Requires no power cord or EIA cable
- Powered by EIA signals
- Range to four miles on LADS at 50 to 9600 bps
- Auto-equalized short-haul modem
- ALL FOR ONLY $95!

Phone 312-541-6060 today.

gandalf™

Gandalf Data, Inc. 1019 S. Noel Ave. Wheeling, IL 60090 TWX 910-651-4951

Multiplexers

Transmission Mode: Full-Duplex
Input Transmission Rates: Asynchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, Asynchronous/Synchronous - 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps to 76,800 bps. Synchronous - 3,600 bps, 7,200 bps, 19,200 bps
Aggregate Transmission Rate: 3,072 bps
Maximum Output Lines: Asynchronous: 1
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates: Asynchronous/Synchronous - 76,000 bps
Communications Protocols: HDLC (CCITT X.205 Level 2), SDLC, Ascii
Features: Automatic Speed Detection (Autobaud), Downline Loading (On-Line Reconfiguration), Automatic Repeat Request, Operational and Statistical Reports, Flow Control, Programmable
Diagnostic Features: Remote
Distribution Method: End user
Price: $3,840 to $8,150
Date First Installed: 1983
Number Installed to Date: Under 100
(See Vendor Profile Page V-16)

INTERACTIVE SYSTEMS/ZIS MODEL 6000
Multiplexer Class: TDM
Input Interface: IBM 3274 CRTS
Maximum Input Channels: Asynchronous: 32
Transmission Mode: Half-Duplex
Input Transmission Rates: Asynchronous/Synchronous - 4.7K bps
Maximum Output Lines: Asynchronous: 1
Output Transmission Mode: Half-Duplex
Output Line Transmission Rates: Asynchronous/Synchronous - 4.7K bps
Communications Protocols: IBM, 3274 Type"A" CRT
Diagnostic Features: Local
Distribution Method: End user
Price: $1,800 to $3,000
Date First Installed: 1981
Number Installed to Date: 500 - 1,000

INTERBUSINESS CORP.
DUAL MUX A
Multiplexer Class: Statistical
Input Interface: RS-232C
Maximum Input Channels: Synchronous: 2
Transmission Mode: Full-Duplex
Input Transmission Rates: Asynchronous - 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 7,200 bps, 9,600 bps
Aggregate Transmission Rate: 192 bps
Output Transmission Mode: Full-Duplex
Features: Automatic Speed Detection (Autobaud), Data Compression, Protocol Conversion, Downline Loading (On-Line Reconfiguration), Automatic Repeat Request, Flyback Buffering Delay, Flow Control, Network Monitor
Diagnostic Features: Remote, Local
Distribution Method: End user, OEM
Price: $695
Date First Installed: June 1983
Number Installed to Date: Under 100
(See Vendor Profile Page V-16)

INTERBUSINESS CORP.
DUAL MUX 9
Multiplexer Class: Statistical
Input Interface: RS-232C
Maximum Input Channels: Asynchronous: 2
Transmission Mode: Full-Duplex
Input Transmission Rates: Synchronous - 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 7,200 bps, 9,600 bps
Aggregate Transmission Rate: 192 bps
Output Transmission Mode: Full-Duplex
Features: Automatic Speed Detection (Autobaud), Data Compression, Protocol Conversion, Downline Loading (On-Line Reconfiguration), Automatic Repeat Request, Flyback Buffering Delay, Flow Control, Network Monitor
Diagnostic Features: Remote, Local
Distribution Method: End user, OEM
Price: $695
Date First Installed: June 1983
Number Installed to Date: Under 100

INTERBUSINESS CORP.
QUAD MUX 9
Multiplexer Class: Statistical
Input Interface: RS-232C
Maximum Input Channels: Asynchronous: 4
Transmission Mode: Full-Duplex
Input Transmission Rates: Synchronous - 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 7,200 bps, 9,600 bps
Aggregate Transmission Rate: 384 bps
Maximum Output Lines: Asynchronous: 1
Output Transmission Mode: Full-Duplex
Features: Automatic Speed Detection (Autobaud), Data Compression, Protocol Conversion, Downline Loading (On-Line Reconfiguration), Automatic Repeat Request, Flyback Buffering Delay, Flow Control, Network Monitor
Diagnostic Features: Remote, Local
Distribution Method: End user, OEM
Price: $1,150
Date First Installed: June 1983
Number Installed to Date: Under 100

INTERBUSINESS CORP.
QUAD MUX 4 CHANNEL STAT MUX
Multiplexer Class: Statistical
Input Interface: RS-232C
Maximum Input Channels: Synchronous: 4
Transmission Mode: Full-Duplex
Input Transmission Rates: Asynchronous - 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 7,200 bps, 9,600 bps
Aggregate Transmission Rate: 384 bps
Maximum Output Lines: Synchronous: 1
Output Transmission Mode: Full-Duplex
Features: Automatic Speed Detection (Autobaud), Data Compression, Protocol Conversion, Downline Loading (On-Line Reconfiguration), Automatic Repeat Request, Flyback Buffering Delay, Flow Control, Network Monitor
Diagnostic Features: Remote, Local
Distribution Method: End user, OEM
Price: $1,150
Date First Installed: June 1983
Number Installed to Date: Under 100

INTERFACE ELECTRONICS, INC.
SLAM
Multiplexer Class: Interface Board
Input Interface: RS-232C
Maximum Input Channels: Synchronous: 16
Transmission Mode: Full-Duplex
Input Transmission Rates: Asynchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps, 19,200 bps
Maximum Output Lines: Synchronous: 19
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates: Asynchronous - 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps, 14,400 bps
Communications Protocols: Ascii
Features: Loopback
Diagnostic Features: Local
Distribution Method: OEM
Price: $1,900
Date First Installed: 1979
Number Installed to Date: Under 100
(See Vendor Profile Page V-16)

INTERLAN, INC.
NTS-10 TERMINAL SAVER
Multiplexer Class: Statistical
Input Interface: RS-232C
Transmission Mode: Half-Duplex, Full-Duplex
Input Transmission Rates: Asynchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps, 19,200 bps
Aggregate Transmission Rate: 384 bps
Output Transmission Mode: Half-Duplex, Full-Duplex
Output Line Transmission Rates: Asynchronous - 10K bps
Communications Protocols: XNS
Features: Automatic Speed Detection (Autobaud), Downline Loading (On-Line Reconfiguration), Automatic Repeat Request, Flyback Buffering Delay, Polling, Port Contention, Switching, Flow Control, Network Monitor
Diagnostic Features: Remote, Local
Distribution Method: End user
Price: $400
Date First Installed: September 1983
Number Installed to Date: Under 100
(See Vendor Profile Page V-16)

INTER-LINK
LN-1000
Multiplexer Class: Statistical
Input Interface: RS-232C, CCITT V.24/V.28
Maximum Input Channels: Synchronous: 9
Transmission Mode: Half-Duplex, Full-Duplex, Echoplex
Input Transmission Rates: Asynchronous - 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps
Aggregate Transmission Rate: 80 bps
Maximum Output Lines: Asynchronous: 1
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates: Synchronous - 2,400 bps, 4,800 bps, 9,600 bps
Communications Protocols: HDLC Proprietary
Features: Automatic Speed Detection (Autobaud), Data Compression, Protocol Conversion, Automatic Repeat Request, Port Contention, Flow Control
Diagnostic Features: Remote, Local
Distribution Method: Third-party
Price: $995 to $1,535
Date First Installed: 1982
Number Installed to Date: Under 100
(See Vendor Profile Page V-16)

INTER-LINK
LN-6000
Multiplexer Class: Statistical
Input Interface: RS-232C, CCITT V.24/V.28
Maximum Input Channels: Synchronous: 9
Transmission Mode: Half-Duplex, Full-Duplex, Echoplex
Input Transmission Rates: Asynchronous - 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps
Aggregate Transmission Rate: 80 bps
Maximum Output Lines: Asynchronous: 1
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates: Synchronous - 2,400 bps, 4,800 bps, 9,600 bps
Communications Protocols: CCITT X.25 (Level 3)
Features: Automatic Speed Detection (Autobaud), Data Compression, Protocol Conversion, Automatic Repeat Request, Port Contention, Flow Control

Diagnostic Features: Remote, Local
Distribution Method: Third-party
Price: $1,695 to $2,695
Date First Installed: September 1982
Number Installed to Date: Under 100

INTER-LINK
LN-4000
Multiplexer Class: Statistical
Input Interface: RS-232C, CCITT V.24/V.28
Maximum Input Channels:
Synchronous: 9
Transmission Mode: Half-Duplex, Full-Duplex, Echoplex
Input Transmission Rates:
Asynchronous - 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps
Aggregate Transmission Rate: 80 bps
Maximum Output Lines:
Asynchronous: 1
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates:
Synchronous - 2,400 bps, 4,800 bps, 9,600 bps
Communications Protocols: CCITT X.25 (Level 3)
Features: Automatic Speed Detection (Autobaud), Data Compression, Protocol Conversion, Downline Loading (On-Line Reconfiguration), Automatic Repeat Request, Port Contention, Operational and Statistical Reports, Flow Control
Diagnostic Features: Remote, Local
Distribution Method: Third-party
Price: $2,995 to $3,995
Date First Installed: September 1982
Number Installed to Date: Under 100

INTERSIL SYSTEMS, INC.
5300
Multiplexer Class: TDM
Input Interface: RS-232C
Maximum Input Channels:
Synchronous: 19
Transmission Mode: Full-Duplex
Aggregate Transmission Rate: 366 bps
Maximum Output Lines:
Asynchronous: 2
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates:
Synchronous - 9,600 bps
Communications Protocols: Ascii
Features: Automatic Speed Detection (Autobaud), Data Compression, Automatic Repeat Request, Flyback Buffering Delay, Port Contention, Operational and Statistical Reports, Flow Control, Programmable
Diagnostic Features: Remote, Local
Distribution Method: Third-party
Price: $1,500 to $2,250
Date First Installed: January 1982
Number Installed to Date: Under 100
(See Vendor Profile Page V-17)

ITT TELECOMM PRODUCTS, INC.
D424
Multiplexer Class: TDM
Input Interface: RS-232C, RS-449
Maximum Input Channels:
Synchronous: 24
Asynchronous: 24
Transmission Mode: Full-Duplex
Input Transmission Rates:
Asynchronous/Synchronous - 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps, 19,200 bps, 56K bps
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates:
Asynchronous/Synchronous - 2,400 bps, 4,800 bps, 9,600 bps, 14,400 bps, 19,200 bps, 56K bps, T-1
Communications Protocols: HDLC (CCITT X.25 Level 2), SDLC, CCITT X.25 (Level 3), BSC, Ascii, Transparent
Diagnostic Features: No
Distribution Method: End user
Price: $5,000 - $50,000
Date First Installed: 1982
Number Installed to Date: 500 - 1,000
(See Vendor Profile Page V-17)

LSD SYSTEMS, INC.
407 SYSTEM
Multiplexer Class: TDM
Input Interface: RS-232C
Maximum Input Channels:
Synchronous: 7
Asynchronous: 7
Transmission Mode: Full-Duplex
Input Transmission Rates:
Asynchronous - 2,400 bps, Synchronous - 9,600 bps
Aggregate Transmission Rate: 672 bps
Maximum Output Lines:
Asynchronous: 1
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates:
Asynchronous/Synchronous - 76,800 bps
Communications Protocols:
Transparent, Infra Red
Features: Switching, Network Monitor
Diagnostic Features: Local
Distribution Method: Third-party
Price: $13,550
Number Installed to Date: Under 100
(See Vendor Profile Page V-18)

M/A-COM LINKABIT, INC.
MX 24
Multiplexer Class: TDM
Input Interface: RS-232C
Maximum Input Channels:
Synchronous: 24
Transmission Mode: Full-Duplex
Input Transmission Rates:
Asynchronous - 19,200 bps
Aggregate Transmission Rate: 15,400 bps
Maximum Output Lines:
Synchronous: 1
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates:
Asynchronous - T-1
Communications Protocols:
Asynchronous
Features: Automatic Speed Detection (Autobaud)
Distribution Method: End user
Price: $2,700 to $5,000
Date First Installed: May 1982
Number Installed to Date: 100 - 500
(See Vendor Profile Page V-18)

M/A-COM LINKABIT, INC.
MX 48
Multiplexer Class: TDM
Input Interface: RS-232C
Maximum Input Channels:
Synchronous: 48
Transmission Mode: Full-Duplex
Input Transmission Rates:
Asynchronous - 19,200 bps
Maximum Output Lines:
Synchronous: 2
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates:
Asynchronous - 2 T-1 Lines
Communications Protocols:
Asynchronous
Features: Automatic Speed Detection (Autobaud)
Diagnostic Features: No
Distribution Method: End user
Price: $5,600
Date First Installed: May 1982

MANAGE, INC.
MUX-8
Multiplexer Class: Fiber-Optic
Input Interface: RS-232C
Maximum Input Channels:
Synchronous: 9
Transmission Mode: Full-Duplex
Input Transmission Rates:
Asynchronous - to 19,200 bps
Aggregate Transmission Rate: 1,536 bps
Maximum Output Lines:
Synchronous: 8
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates:
Asynchronous - 625,000 bps
Communications Protocols: HDLC (CCITT X.205 Level 2), SDLC, CCITT X.25 (Level 3), BSC, Ascii
Diagnostic Features: No
Distribution Method: End user
Date First Installed: November 1983
Number Installed to Date: Under 100
(See Vendor Profile Page V-18)

MEGADATA CORP.
SMS/X INTERFACE-A
Multiplexer Class: Network Concentrator
Input Interface: RS-232C
Maximum Input Channels:
Synchronous: 4
Transmission Mode: Full-Duplex
Input Transmission Rates:
Asynchronous - 50 bps, 19,200 bps
Maximum Output Lines:
Synchronous: 4
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates:
Asynchronous - 14,400 bps
Communications Protocols: Ascii
Features: Data Compression, Protocol Conversion, Downline Loading (On-Line Reconfiguration), Polling, Port Contention, Programmable, Network Monitor
Diagnostic Features: Remote, Local
Distribution Method: End user
Price: $1,500
Date First Installed: September 1983
Number Installed to Date: Under 100
(See Vendor Profile Page V-19)

MEGADATA CORP.
SMS/X INTERFACE-S
Multiplexer Class: Network Concentrator
Input Interface: RS-232C
Maximum Input Channels:
Asynchronous: 4
Transmission Mode: Full-Duplex
Input Transmission Rates:
Synchronous - 50 bps, 19,200 bps
Maximum Output Lines:
Asynchronous: 4
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates:
Synchronous - 14,400 bps
Communications Protocols: BSC
Features: Data Compression, Protocol Conversion, Downline Loading (On-Line Reconfiguration), Polling, Port Contention, Programmable, Network Monitor
Diagnostic Features: Remote, Local
Distribution Method: End user
Price: $1,500
Date First Installed: 1982
Number Installed to Date: Under 100

MICOM SYSTEMS, INC.
INSTALINK400 MODEL M481
Multiplexer Class: FDM
Input Interface: RS-232C, CCITT V.24/V.28
Maximum Input Channels:
Synchronous: 1
Transmission Mode: Half-Duplex, Full-Duplex
Input Transmission Rates:
Asynchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps, 19,200 bps
Aggregate Transmission Rate: 192 bps
Maximum Output Lines:
Other: Modulated Signal
Output Transmission Mode: Full-Duplex
Features: Automatic Speed Detection (Autobaud)
Diagnostic Features: Local
Distribution Method: Third-party
Price: $550 to $575
Date First Installed: March 1983
Number Installed to Date: 500 - 1,000
(See Vendor Profile Page V-19)

MICOM SYSTEMS, INC.
MICRO 200 PORT CONCENTRATOR
Multiplexer Class: Statistical
Input Interface: RS-232C, CCITT V.24/V.28

Multiplexers

Maximum Input Channels:
Asynchronous: 1
Transmission Mode: Full-Duplex
Input Transmission Rates: Synchronous - 2,400 bps, 4,800 bps, 9,600 bps, 19,200 bps
Aggregate Transmission Rate: 576 bps
Maximum Output Lines:
Asynchronous: 8
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates: Synchronous - 2,400 bps, 4,800 bps, 9,600 bps, 14,400 bps
Features: Automatic Speed Detection (Autobaud), Data Compression, Downline Loading (On-Line Reconfiguration), Automatic Repeat Request, Flyback Buffering Delay, Port Contention, Switching, Operational and Statistical Reports, Flow Control, Network Monitor, Local Switching
Diagnostic Features: Remote, Local
Distribution Method: Third-party
Price: $2,550 to $3,250
Date First Installed: April 1983
Number Installed to Date: Under 100

MICOM SYSTEMS, INC.
MICRO 800 ERROR CONTROLLER
Multiplexer Class: Statistical
Input Interface: RS-232C, CCITT V.24/V.28
Maximum Input Channels:
Synchronous: 1
Transmission Mode: Half-Duplex, Full-Duplex
Input Transmission Rates: Asynchronous - 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps, 1,200/75 Asymmetrical
Aggregate Transmission Rate: 96 bps
Maximum Output Lines:
Synchronous: 1
Asynchronous: 1
Output Transmission Mode: Half-Duplex, Full-Duplex
Output Line Transmission Rates: Asynchronous - Up to 9,600 bps
Features: Data Compression, Protocol Conversion, Automatic Repeat Request, Flyback Buffering Delay, Flow Control, Asynchronous/Synchronous and Full- and Half Duplex Conversion
Diagnostic Features: Remote, Local
Price: $795
Date First Installed: April 1979
Number Installed to Date: 800 - 1,000

MICOM SYSTEMS, INC.
MICRO 800/2 DATA CONCENTRATOR
Multiplexer Class: Statistical
Input Interface: RS-232C, CCITT V.24/V.28
Maximum Input Channels:
Synchronous: 16
Asynchronous: 4
Transmission Mode: Half-Duplex, Full-Duplex
Input Transmission Rates: Asynchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,800 bps, 134.5M bps, 150M bps, 200M bps, Asynchronous/Synchronous - 1,200 bps, 2,400 bps, 4,800 bps, 9,800 bps
Aggregate Transmission Rate: 768 bps
Maximum Output Lines:
Synchronous: 1
Asynchronous: 1
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates: Asynchronous - 1,200 bps, 1,800 bps, 9,800 bps, Asynchronous/Synchronous - Up to 19,200 bps
Features: Automatic Speed Detection (Autobaud), Data Compression, Downline Loading (On-Line Reconfiguration), Automatic Repeat Request, Flyback Buffering Delay, Operational and Statistical Reports, Flow Control, Command Port
Diagnostic Features: Remote, Local
Distribution Method: Third-party
Price: $1,050 to $4,800
Date First Installed: January 1978
Number Installed to Date: 10,000 - 50,000

MICOM SYSTEMS, INC.
MICRO 800/X25
Multiplexer Class: Statistical
Input Interface: RS-232C, CCITT V.24/V.28
Maximum Input Channels:
Synchronous: 24
Asynchronous: 9
Transmission Mode: Half-Duplex, Full-Duplex, Echoplex
Input Transmission Rates: Asynchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,800 bps, Asynchronous/Synchronous - 1,200 bps, 2,400 bps, 4,800 bps
Aggregate Transmission Rate: 768 bps
Maximum Output Lines:
Asynchronous: 1
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates: Synchronous - 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps, 14,400 bps
Communications Protocols: CCITT X 25 (Level-3)
Features: Automatic Speed Detection (Autobaud), Protocol Conversion, Downline Loading (On-Line Reconfiguration), Automatic Repeat Request, Port Contention, Switching, Operational and Statistical Reports, Flow Control, Programmable, Network Monitor
Diagnostic Features: Remote, Local
Distribution Method: End user, OEM, Third-party
Price: $2,050 to $4,800
Date First Installed: November 1982

MICOM SYSTEMS, INC.
MICRO 800/2 MULTIDROP CONCENTRATOR
Multiplexer Class: Statistical
Input Interface: RS-232C, CCITT V.24/V.28
Transmission Mode: Half-Duplex, Full-Duplex
Input Transmission Rates: Asynchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,800 bps, Asynchronous/Synchronous - 134.5M bps, 150M bps, 200M bps
Aggregate Transmission Rate: 768 bps
Maximum Output Lines:
Synchronous: 1
Asynchronous: 1
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates: Asynchronous/Synchronous - Up to 9,600 bps
Features: Automatic Speed Detection (Autobaud), Data Compression, Downline Loading (On-Line Reconfiguration), Automatic Repeat Request, Flyback Buffering Delay, Polling, Operational and Statistical Reports, Flow Control, Network Monitor, Command Port, Battery Backup
Diagnostic Features: Remote, Local
Price: $900 to $4,800
Number Installed to Date: 500 - 1,000

MICOM SYSTEMS, INC.
MICRO 8000 INTELLIGENT MODEM
Multiplexer Class: Statistical
Input Interface: RS-232C, CCITT V.24/V.28
Transmission Mode: Half-Duplex, Full-Duplex
Input Transmission Rates: Asynchronous - 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,800 bps
Aggregate Transmission Rate: 96 bps
Maximum Output Lines:
Synchronous: 1
Asynchronous: 1
Output Transmission Mode: Half-Duplex, Full-Duplex
Output Line Transmission Rates: Asynchronous - 1,200 bps, 1,800 bps, 2,400 bps, Synchronous - 110 bps, 600 bps, 800 bps
Features: Data Compression, Protocol Conversion, Automatic Repeat Request, Flyback Buffering Delay, Flow Control, Asynchronous/Synchronous and Full- and Half-Duplex Conversion
Diagnostic Features: Remote, Local
Price: $1,500 to $3,400
Date First Installed: April 1979
Number Installed to Date: 500 - 1,000

MICOM SYSTEMS, INC.
MICRO 8000 CONCENTRATOR MODEM
Multiplexer Class: Statistical
Input Interface: RS-232C, CCITT V.24/V.28
Transmission Mode: Half-Duplex, Echoplex
Input Transmission Rates: Asynchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,800 bps, 134.5M bps, 150M bps, 200M bps; Asynchronous/Synchronous - 1,200 bps, 2,400 bps, 4,800 bps, 9,800 bps
Aggregate Transmission Rate: 768 bps
Maximum Output Lines:
Synchronous: 1
Asynchronous: 1
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates: Asynchronous - 1,200 bps, 1,800 bps, 9,800 bps, Asynchronous/Synchronous - Up to 19,200 bps
Features: Automatic Speed Detection (Autobaud), Data Compression, Downline Loading (On-Line Reconfiguration), Automatic Repeat Request, Flyback Buffering delay, Operational and Statistical Reports, Flow Control
Diagnostic Features: Local
Distribution Method: Third-party
Price: $1,650 to $7,200
Date First Installed: January 1978
Number Installed to Date: 10,000 - 50,000

MICOM SYSTEMS, INC.
INSTAMUX479 MDL M474 OR 478
Multiplexer Class: TDM
Input Interface: RS-232C, CCITT V.24/V.28
Maximum Input Channels:
Synchronous: 9
Transmission Mode: Half-Duplex, Full-Duplex
Input Transmission Rates: Asynchronous - 50 bps, 75 bps, 110 bps, 600 bps, 800 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,800 bps, 4,800 bps, 7,200 bps, 9,800 bps, 19,200 bps
Aggregate Transmission Rate: 1,536 bps
Maximum Output Lines:
Asynchronous: 1
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates: Asynchronous - 620M bps
Communications Protocols: Bit Sampled
Features: Automatic Speed Detection (Autobaud)
Diagnostic Features: Local
Distribution Method: Third-party
Price: $895 to $1,050
Date First Installed: October 1982
Number Installed to Date: 500 - 1,000

MICOM SYSTEMS, INC.
INSTATRUNK480 MODEL M481
Multiplexer Class: TDM
Input Interface: RS-232C, CCITT V.24/V.28
Maximum Input Channels:
Synchronous: 128
Transmission Mode: Full-Duplex
Input Transmission Rates: Asynchronous - 50 bps, 75 bps, 600 bps, 800 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,800 bps, 4,800 bps, 7,200 bps, 9,800 bps, 19,200 bps
Aggregate Transmission Rate: 12,288 bps

Maximum Output Lines:
Asynchronous: 1
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates:
Asynchronous - T-1
Communications Protocols: Bit Interleaved
Features: Automatic Speed Detection (Autobaud), Downline Loading (On-Line Reconfiguration)
Diagnostic Features: Remote, Local
Distribution Method: Third-party
Price: $3,200 to $12,600
Date First Installed: November 1983
Number Installed to Date: Under 100

MICOM SYSTEMS, INC.
M4096/4+
Multiplexer Class: TDM
Input Interface: RS-232C, CCITT V.24/V.28
Maximum Input Channels:
Asynchronous: 4
Transmission Mode: Half-Duplex, Full-Duplex
Input Transmission Rates:
Synchronous - 2,400 bps, 4,800 bps, 7,200 bps, 9,600 bps
Maximum Output Lines:
Asynchronous: 1
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates:
Synchronous - 4,800 bps, 9,600 bps
Communications Protocols: All Synchronous Protocols
Features: Downline Loading (On-Line Reconfiguration), Switched Carrier Simulation
Diagnostic Features: Remote, Local
Distribution Method: Third-party
Price: $3,695
Date First Installed: September 1983
Number Installed to Date: Under 100

MICOM SYSTEMS, INC.
MICRO100 LINE MULTIPLEXER
Multiplexer Class: TDM
Input Interface: RS-232C, CCITT V.35
Maximum Input Channels:
Asynchronous: 1
Transmission Mode: Full-Duplex
Input Transmission Rates:
Synchronous - 19,200 bps, Asynchronous/Synchronous - Up to 57,600 bps
Aggregate Transmission Rate: 640 bps
Maximum Output Lines:
Asynchronous: 4
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates:
Synchronous - 4,800 bps, 9,600 bps
Communications Protocols: Bit Interleaved
Features: Automatic Downspeed or Line Delete
Diagnostic Features: Remote, Local
Distribution Method: Third-party
Price: $4,300 to $6,400
Date First Installed: September 1979
Number Installed to Date: 100 - 500

MICOM SYSTEMS, INC.
MICRO700 MODEL M700
Multiplexer Class: TDM
Input Interface: RS-232C, CCITT V.24/V.28
Maximum Input Channels:
Asynchronous: 4
Transmission Mode: Full-Duplex
Input Transmission Rates:
Synchronous - 1,200 bps, 2,400 bps, 4,800 bps
Aggregate Transmission Rate: 96 bps
Maximum Output Lines:
Asynchronous: 1
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates:
Synchronous - 2,400 bps, 4,800 bps, 9,600 bps, 14,400 bps
Communications Protocols: Bit Interleaved
Features: Downline Loading (On-Line Reconfiguration)
Diagnostic Features: Remote, Local
Distribution Method: Third-party
Date First Installed: 1979
Number Installed to Date: 500 - 1,000

MICOM SYSTEMS, INC.
MICRO700 MODEL 1 OR 2
Multiplexer Class: TDM
Input Interface: RS-232C
Maximum Input Channels:
Asynchronous: 36
Transmission Mode: Full-Duplex
Input Transmission Rates:
Synchronous - 1,200 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps, 19,200 bps;
Asynchronous/Synchronous - Up to 256,600 bps
Output Line Transmission Rates:
Synchronous - 9,600 bps, 14,400 bps, 19,200 bps, 56,000 bps;
Asynchronous/Synchronous - Up to 300,000 bps
Communications Protocols: Bit Interleaved
Features: Downline Loading (On-Line Reconfiguration), Instantaneous Configuration Selection
Diagnostic Features: Remote, Local
Distribution Method: Third-party
Price: $2,500 to $10,000
Date First Installed: 1974
Number Installed to Date: 500 - 1,000

MICOM SYSTEMS, INC.
MICRO 800 CONCENTRATOR SWITCH
Multiplexer Class: Data Concentrator Switch
Input Interface: RS-232C, CCITT V.24/V.28
Maximum Input Channels:
Asynchronous: 8
Transmission Mode: Full-Duplex
Input Transmission Rates:
Asynchronous - 1,200 bps, 1,800 bps, 9,600 bps;
Asynchronous/Synchronous - Up to 19,200 bps
Maximum Output Lines:
Synchronous: 1
Asynchronous: 1
Output Transmission Mode: Half-Duplex, Full-Duplex
Output Line Transmission Rates:
Asynchronous/Synchronous - 1,200 bps, 2,400 bps, 4,800 bps, 9,600 bps, Synchronous - 14,400 bps
Features: Automatic Speed Detection (Autobaud), Data Compression, Downline Loading (On-Line Reconfiguration), Automatic Repeat Request, Ryback Buffering Delay, Operational and Statistical Reports, Flow Control
Diagnostic Features: Remote, Local
Distribution Method: Third-party
Price: $1,400
Date First Installed: September 1979
Number Installed to Date: Under 100

MIDWESTRONICS CORP.
MZV-11/8 OCTOMUX
Multiplexer Class: TDM
Input Interface: RS-232C
Maximum Input Channels:
Synchronous: 8
Transmission Mode: Full-Duplex
Input Transmission Rates:
Asynchronous - Up to 38.4K bps
Aggregate Transmission Rate: 3,072 bps
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates:
Asynchronous - Up to 38.K bps
Features: Switching, Programmable
Diagnostic Features: Local
Distribution Method: End user, OEM, Third-party
Price: $1,200
Date First Installed: 1983
(See Vendor Profile Page V-20)

MITEL, INC.
MITEL DATA DEMULTIPLEXER
Multiplexer Class: Demultiplexer
Input Interface: RS-232C
Transmission Mode: Half-Duplex, Full-Duplex, Echoplex
Input Transmission Rates:
Asynchronous - 300 bps, 1,200 bps
Maximum Output Lines:
Synchronous: 4
Output Transmission Mode: Half-Duplex, Full-Duplex, Echoplex
Output Line Transmission Rates:
Asynchronous - 300 bps, 1,200 bps
Communications Protocols: Serial Data Link
Features: Switching, Programmable
Diagnostic Features: Local
Distribution Method: Third-party
Price: $850
Date First Installed: June 1982
Number Installed to Date: Under 100
(See Vendor Profile Page V-20)

MODULAR COMPUTER SYSTEMS, INC. (MODCOMP)
1607
Multiplexer Class: TDM
Input Interface: RS-232C, Current Loop V.35, WE301/303
Maximum Input Channels:
Synchronous: 256
Asynchronous: 256
Transmission Mode: Half-Duplex, Full-Duplex
Input Transmission Rates:
Asynchronous/Synchronous - 60 bps to 250,000 bps
Aggregate Transmission Rate: 250 bps
Maximum Output Lines:
Synchronous: 256
Asynchronous: 256
Output Transmission Mode: Half-Duplex, Full-Duplex, Echoplex
Output Line Transmission Rates:
Asynchronous/Synchronous - 50 bps to 250,000 bps
Communications Protocols: HDLC (CCITT X.205 Level 2), SDLC, CCITT X.25 (Level 3), BSC, Aecl, Marnet
Features: Protocol Conversion, Downline Loading (On-Line Reconfiguration), Polling, Operational and Statistical Reports, Flow Control, Programmable, IBM 2/3780, IBM 3271
Diagnostic Features: Local
Distribution Method: End user
Price: $75,000
Date First Installed: April 1979
Number Installed to Date: 600 - 1,000
(See Vendor Profile Page V-20)

MULTI - TECH SYSTEMS, INC.
MULTI-MUX
Multiplexer Class: Statistical
Input Interface: RS-232C
Maximum Input Channels:
Synchronous: 9
Asynchronous: 1
Transmission Mode: Half-Duplex, Full-Duplex, Echoplex
Input Transmission Rates:
Asynchronous/Synchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps
Aggregate Transmission Rate: 192 bps
Maximum Output Lines:
Asynchronous: 1
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates:
Synchronous - 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps
Communications Protocols: HDLC (CCITT X.205 Level 2)
Features: Automatic Speed Detection (Autobaud), Data Compression, Downline Loading (On-Line Reconfiguration), Automatic Repeat Request, Polling, Flow Control, Programmable, Point to Point, Multipoint
Diagnostic Features: Remote, Local
Distribution Method: End user
Price: $1,295
Date First Installed: March 1983
(See Vendor Profile Page V-20)

MULTI TECHNICS
RDS-1000
Multiplexer Class: Concentrator
Input Interface: RS-232C
Maximum Input Channels:
Synchronous: 10
Transmission Mode: Half-Duplex, Full-Duplex, Echoplex
Input Transmission Rates:
Asynchronous - 300 bps, 600 bps,

Multiplexers

1,200 bps, 4,800 bps, 9,600 bps
Aggregate Transmission Rate: 96 bps
Maximum Output Lines:
Synchronous: 18
Output Transmission Mode: Half-Duplex, Full-Duplex, Echoplex
Output Line Transmission Rates: Asynchronous - 300 bps, 600 bps, 1,200 bps, 4,800 bps, 9,600 bps
Communications Protocols: Variable Link CRC16
Features: Downline Loading (On-Line Reconfiguration), Automatic Repeat Request, Polling, Port Contention, Switching, Flow Control, Programmable
Diagnostic Features: Remote, Local
Distribution Method: OEM
Price: $5,000
Date First Installed: June 1978
Number Installed to Date: 100 - 500
(See Vendor Profile Page V-20)

MULTI TRONICS
SSR-700
Multiplexer Class: Concentrator
Input Interface: FSK Modem
Maximum Input Channels:
Synchronous: 1
Transmission Mode: Half-Duplex, Full-Duplex, Echoplex
Input Transmission Rates: Asynchronous - 1,200 bps
Aggregate Transmission Rate: 12 bps
Maximum Output Lines:
Synchronous: 1
Output Transmission Mode: Half-Duplex, Full-Duplex, Echoplex
Output Line Transmission Rates: Asynchronous - 1,200 bps
Communications Protocols: Variable Link CRC16
Features: Downline Loading (On-Line Reconfiguration), Automatic Repeat Request, Polling, Flow Control, Programmable
Distribution Method: End user
Price: $1,000
Date First Installed: June 1982
Number Installed to Date: 100 - 500

NETWORK PRODUCTS, INC.
BABY MUX
Multiplexer Class: Statistical
Input Interface: RS-232C, CCITT V.24/V.28
Maximum Input Channels:
Synchronous: 19,200
Transmission Mode: Full-Duplex
Input Transmission Rates: Asynchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,800 bps, 18,200 bps, 134.5M bps
Aggregate Transmission Rate: 384 bps
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates: Asynchronous/Synchronous - 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps, 14,400 bps
Communications Protocols: HDLC (CCITT X.205 Level-2)
Features: Data Compression, Downline Loading (On-Line Reconfiguration), Automatic Repeat Request, Flow Control, Programmable
Diagnostic Features: Remote, Local
Distribution Method: Third-party
Price: $1,350 to $2,300
Date First Installed: April 1982
Number Installed to Date: 500 - 1,000
(See Vendor Profile Page V-21)

NETWORK PRODUCTS, INC.
BABY NET
Multiplexer Class: Statistical
Input Interface: RS-232C, CCITT V.24/V.28
Transmission Mode: Full-Duplex
Input Transmission Rates: Asynchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,800 bps, 4,800 bps, 7,200 bps, 9,800 bps
Aggregate Transmission Rate: 384 bps
Maximum Output Lines:
Asynchronous: 1
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates: Synchronous - 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps
Communications Protocols: HDLC (CCITT X.205 Level 2)
Features: Automatic Speed Detection (Autobaud), Data Compression, Downline Loading (On-Line Reconfiguration), Automatic Repeat Request, Polling, Port Contention, Switching, Operational, Statistical Reports, Flow Control, Programmable, Network Monitor
Diagnostic Features: Remote, Local
Distribution Method: Third-party
Price: $1,450 to $2,400
Date First Installed: December 1982
Number Installed to Date: 100 - 500

NETWORK PRODUCTS, INC.
LOCAL MUX
Multiplexer Class: TDM
Input Interface: RS-232C
Maximum Input Channels:
Synchronous: 8
Asynchronous: 8
Transmission Mode: Full-Duplex
Input Transmission Rates: Asynchronous/Synchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps, 19,200 bps, 38,400 bps
Aggregate Transmission Rate: 3,072 bps
Maximum Output Lines:
Other: 1
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates: Asynchronous/Synchronous - 937,500 bps
Features: Automatic Speed Detection (Autobaud), Transparent
Diagnostic Features: Remote, Local
Distribution Method: Third-party
Price: $850
Date First Installed: April 1983
Number Installed to Date: 500 - 1,000

NORTHERN TELECOM
COMM-MULTIPLEXER
Multiplexer Class: Concentrator
Input Interface: RS-232C
Maximum Input Channels:
Synchronous: 8
Asynchronous: 8
Transmission Mode: Full-Duplex
Input Transmission Rates: Asynchronous/Synchronous - 110 bps, 300 bps, 800 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps; Synchronous - 18,200 bps
Aggregate Transmission Rate: 96 bps
Maximum Output Lines:
Synchronous: 1
Asynchronous: 1
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates: Asynchronous/Synchronous - 1,200 bps, 2,400 bps, 4,800 bps, 9,600 bps; Synchronous - 14,400 bps
Communications Protocols: HDLC (CCITT X.205 Level 2), SDLC, CCITT X.25 (Level 3), BSC
Features: Automatic Speed Detection (Autobaud), Protocol Conversion, Downline Loading (On-Line Reconfiguration), Automatic Repeat Request, Polling, Programmable, Network Monitor, Auto Dialup
Diagnostic Features: Remote, Local
Distribution Method: End user
Price: $2,000
(See Vendor Profile Page V-22)

OPTELECOM, INC.
4461
Multiplexer Class: Fiber-Optic TDM
Input Interface: RS-232C
Maximum Input Channels:
Synchronous: 4
Asynchronous: 4
Transmission Mode: Full-Duplex
Input Transmission Rates: Synchronous - Up to 153, 000 bps, Asynchronous - 100,000 bps
Aggregate Transmission Rate: 98,000 bps
Maximum Output Lines:
Other: 1 Aggregate Output Line
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates: Asynchronous - 8 8K bps
Communications Protocols: Optical Intensity Modular Signal
Diagnostic Features: Remote
Distribution Method: End user, OEM
Price: $1,100
Date First Installed: March 1983
Number Installed to Date: 50
(See Vendor Profile Page V-22)

OPTELECOM, INC.
5166-II
Multiplexer Class: TDM
Input Interface: RS-232C
Maximum Input Channels:
Synchronous: 4
Asynchronous: 8
Transmission Mode: Full-Duplex
Input Transmission Rates: Asynchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,800 bps, 3,600 bps, 7,200 bps; Asynchronous/Synchronous - 38.4K bps, 1,200 bps, 2,400 bps, 4,800 bps, 9,800 bps, 19,200 bps
Aggregate Transmission Rate: 1.2K bps
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates: Optical - 8,000 bps
Communications Protocols: All RS-232
Diagnostic Features: Remote
Distribution Method: End user, OEM
Price: $6,000
Date First Installed: February 1982
Number Installed to Date: 100

PARADYNE CORP.
DCX-818
Multiplexer Class: Statistical
Input Interface: RS-232C, CCITT V.24/V.28
Maximum Input Channels:
Synchronous: 8
Asynchronous: 8
Transmission Mode: Full-Duplex
Input Transmission Rates: Asynchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,800 bps, 4,800 bps, 7,200 bps, 8,800 bps
Output Line Transmission Rates: Synchronous - 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 8,600 bps, 14,400 bps, 19,200 bps
Communications Protocols: HDLC (CCITT X.205 Level 2)
Features: Automatic Speed Detection (Autobaud), Downline Loading (On-Line Reconfiguration).
Diagnostic Features: Remote, Local
Price: $1,690 to $2,180
Date First Installed: 1982
Number Installed to Date: 500 - 1,000
(See Vendor Profile Page V-23)

PARADYNE CORP.
DCX-836
Multiplexer Class: Statistical
Input Interface: RS-232C, CCITT V.24/V.28, CCITT V.23 V.28
Maximum Input Channels:
Synchronous: 32
Input Transmission Rates: Asynchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,800 bps, 4,800 bps, 7,200 bps, 8,600 bps
Output Line Transmission Rates: Synchronous - 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps, 14,400 bps, 19,200 bps
Communications Protocols: HDLC (CCITT X.205 Level 2)
Features: Automatic Speed Detection (Autobaud), Downline Loading (On-Line Reconfiguration)
Diagnostic Features: Remote, Local
Price: $3,200 to $7,200
Date First Installed: September 1982
Number Installed to Date: 1,000

PARADYNE CORP.
DCX-840
Multiplexer Class: Statistical
Input Interface: V.35

Input Transmission Rates:
Asynchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps
Output Line Transmission Rates:
Synchronous - 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps, 14,400 bps, 19,200 bps, 56,000 bps; Asynchronous/Synchronous - 72,000 bps
Communications Protocols: HDLC (CCITT X.205 Level 2)
Features: Automatic Speed Detection (Autobaud), Downline Loading (On-Line Reconfiguration)
Diagnostic Features: Remote, Local
Price: $10,000 to $65,000
Date First Installed: 1982
Number Installed to Date: Under 100

PARADYNE CORP.
DCX-868
Multiplexer Class: Statistical
Input Interface: CCITT V.24/V.28, V.35
Maximum Input Channels:
Synchronous: 240
Input Transmission Rates:
Asynchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps
Output Line Transmission Rates:
Synchronous - 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps, 14,400 bps, 19,200 bps, 56,000 bps; Asynchronous/Synchronous - 72,000 bps
Communications Protocols: HDLC (CCITT X.205 Level 2)
Features: Automatic Speed Detection (Autobaud), Downline Loading (On-Line Reconfiguration)
Diagnostic Features: Remote, Local
Price: $18,000 to $100,000
Date First Installed: 1982
Number Installed to Date: Under 100

PARADYNE CORP.
DCX-861
Multiplexer Class: Statistical
Input Interface: CCITT V.24/V.28
Maximum Input Channels:
Synchronous: 9
Input Transmission Rates:
Asynchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps
Output Line Transmission Rates:
Synchronous - 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps
Communications Protocols: HDLC
Features: Automatic Speed Detection (Autobaud), Downline Loading (On-Line Reconfiguration)
Diagnostic Features: Remote, Local
Price: $2,900 to $3,300
Date First Installed: 1982

PARADYNE CORP.
DCX-871
Multiplexer Class: Statistical
Input Interface: CCITT V.24/V.28
Maximum Input Channels:
Synchronous: 32
Input Transmission Rates:
Asynchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps
Output Line Transmission Rates:
Synchronous - 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps
Communications Protocols: HDLC (CCITT X.205 Level 2)
Features: Automatic Speed Detection (Autobaud), Downline Loading (On-Line Reconfiguration)
Diagnostic Features: Remote, Local
Price: $4,500 to $8,800
Number Installed to Date: 100 - 500

PARADYNE CORP.
MP-14.4 SM
Multiplexer Class: Statistical
Input Interface: RS-232C, CCITT V.24/V.28
Maximum Input Channels:
Synchronous: 19
Input Transmission Rates:
Asynchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps, Asynchronous/Synchronous - 1,200 to 12,000 bps
Output Line Transmission Rates:
Synchronous - 19,200 bps
Features: Automatic Speed Detection (Autobaud)
Price: $14,975
Date First Installed: 1983

PARADYNE CORP.
DCX-T1
Multiplexer Class: TDM
Input Interface: CCITT V.35, 551A, 6-Wire
Maximum Input Channels:
Synchronous: 48
Input Transmission Rates:
Asynchronous - 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,200 bps, 7,200 bps, 9,600 bps, 19,200 bps, 44,800 bps
Output Line Transmission Rates:
Synchronous - 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps, 14,400 bps, 19,200 bps, 56,000 bps, T-1; Asynchronous/Synchronous - 1.5M bps
Features: Downline Loading (On-Line Reconfiguration)
Price: $6,000 to $27,000
Date First Installed: 1983

PARADYNE CORP.
DCX-T2S
Multiplexer Class: TDM
Input Interface: RS-232C, CCITT V.24/V.28
Maximum Input Channels:
Asynchronous: 4
Transmission Mode: Full-Duplex
Input Transmission Rates:
Synchronous - 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps
Aggregate Transmission Rate: 192 bps
Maximum Output Lines:
Asynchronous: 1
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates:
Synchronous - 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps, 14,400 bps, 19,200 bps
Communications Protocols: HDLC (CCITT X.205 Level 2), SDLC, CCITT X.25 (Level 3)
Features: Automatic Speed Detection (Autobaud), Downline Loading (On-Line Reconfiguration); Automatic Repeat Request, Flyback Buffering Delay, Flow Control
Diagnostic Features: Remote, Local
Distribution Method: End user
Price: $4,000
Date First Installed: 1982
Number Installed to Date: Under 100

PERIPHONICS CORP.
VOICEPACK
Multiplexer Class: Voice Multiplexer and Front End Processor
Input Interface: RS-232C, CCITT V.24/V.28, MIL 188C, Custom Protocols
Maximum Input Channels:
Synchronous: 100
Asynchronous: 100
Transmission Mode: Half-Duplex, Full-Duplex
Input Transmission Rates:
Asynchronous - 300 bps, 1,200 bps
Maximum Output Lines:
Other: Configuration Dependent
Output Transmission Mode: Half-Duplex, Full-Duplex
Features: Data Compression, Protocol Conversion, Downline Loading (On-Line Reconfiguration), Automatic Repeat Request, Flyback Buffering Delay, Polling, Port Contention, Switching, Operational and Statistical Reports, Flow Control, Network Monitor, Voice/Data Front End Peripherals
Diagnostic Features: Remote
Distribution Method: End user, OEM
Price: $20,000
Date First Installed: January 1974
Number Installed to Date: Under 100
(See Vendor Profile Page V-23)

PERIPHONICS CORP.
T-COMM
Multiplexer Class: Voice Multiplexer
Input Interface: RS-232C, CCITT V.24/V.28, MIL 188C, Custom Protocols
Maximum Input Channels:
Synchronous: 419
Asynchronous: 416
Transmission Mode: Full-Duplex
Input Transmission Rates:
Asynchronous/Synchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps, Asynchronous - 19,200 bps
Maximum Output Lines:
Other: Dependent
Output Transmission Mode: Half-Duplex, Full-Duplex
Communications Protocols: Vendor Dependent
Features: Data Compression, Protocol Conversion, Downline Loading (On-Line Reconfiguration), Automatic Repeat Request, Polling, Port Contention, Switching, Operational and Statistical Reports, Flow Control, Programmable, Network Monitor
Diagnostic Features: Remote
Distribution Method: End user, OEM
Price: $35,000
Date First Installed: January 1970
Number Installed to Date: 100 - 500

PERIPHONICS CORP.
VOICE STAR
Multiplexer Class: Voice Multiplexer and Front End Processor
Input Interface: RS-232C, CCITT V.24/V.28, MIL 188C, Custom Protocols
Maximum Input Channels:
Synchronous: 419
Asynchronous: 419
Transmission Mode: Full-Duplex
Input Transmission Rates:
Asynchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 3,600 bps, 7,200 bps, 19,200 bps;
Asynchronous/Synchronous - 2,400 bps, 4,800 bps, 9,600 bps
Maximum Output Lines:
Other: Dependent
Output Transmission Mode: Half-Duplex, Full-Duplex
Communications Protocols: Vendor Dependent
Features: Data Compression, Protocol Conversion, Downline Loading (On-Line Reconfiguration), Automatic Repeat Request, Polling, Port Contention, Switching, Operational and Statistical Reports, Flow Control, Programmable, Network Monitor
Diagnostic Features: Remote
Distribution Method: End user, OEM
Price: $35,000
Date First Installed: January 1970
Number Installed to Date: 100 - 500

PHALO CORP.
MD-3200
Multiplexer Class: TDM
Input Interface: IBM 3274 Control Terminal
Transmission Mode: Half-Duplex
Input Transmission Rates:
Asynchronous/Synchronous - 2.36M bps
Maximum Output Lines:
Synchronous: 1
Features: 3274 Terminal to Controller
Diagnostic Features: Remote, Local
Distribution Method: End user, OEM
Price: $2,740 to $4,750
Date First Installed: April 1983
(See Vendor Profile Page V-23)

PHALO CORP.
MD-3200
Multiplexer Class: TDM
Input Interface: IBM 3274 Control Terminal
Transmission Mode: Half-Duplex
Input Transmission Rates:
Asynchronous/Synchronous - 2.36M bps
Maximum Output Lines:

Other: 1 Optical or Coaxial
Output Transmission Mode: Half-Duplex
Output Line Transmission Rates: Asynchronous/Synchronous - Proprietary
Communications Protocols: IBM
Features: 3274 Terminal to Controller
Diagnostic Features: No
Distribution Method: End user, OEM
Price: $875
Date First Installed: September 1983

PHALO CORP.
OMX-1908
Multiplexer Class: TDM
Input Interface: RS-232C
Maximum Input Channels:
Synchronous: 24
Asynchronous: 8
Transmission Mode: Full-Duplex
Input Transmission Rates: Asynchronous/Synchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps, 19,200 bps
Aggregate Transmission Rate: 4,600 bps
Maximum Output Lines:
Other: Optical Link
Output Transmission Mode: Full-Duplex
Output Transmission Rate: 9.6M bps
Features: Speed and Protocol Transparent
Diagnostic Features: No
Distribution Method: End user
Price: $1,295
Date First Installed: July 1983

PHALO CORP.
OMX-1916
Multiplexer Class: TDM
Input Interface: RS-232C
Maximum Input Channels:
Synchronous: 48
Asynchronous: 19
Transmission Mode: Full-Duplex
Input Transmission Rates: Asynchronous/Synchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,800 bps, 19,200 bps
Aggregate Transmission Rate: 9,210 bps
Output Transmission Mode: Full-Duplex
Output Transmission Rate: 6.8M bps
Features: Speed and Protocol Transparent
Diagnostic Features: No
Distribution Method: End user
Price: $2,395
Date First Installed: July 1983

PHALO CORP.
OMX-6800
Multiplexer Class: TDM
Input Interface: RS-232C, MIL 188C, RS-449, V.35
Maximum Input Channels:
Synchronous: 64
Asynchronous: 64
Transmission Mode: Full-Duplex
Input Transmission Rates: Asynchronous/Synchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps, 16,200 bps
Aggregate Transmission Rate: 9,210 bps
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates: Asynchronous/Synchronous - 8M bps
Features: Protocol and Speed Transparent
Diagnostic Features: Local
Distribution Method: End user, OEM
Price: $6,000 to $18,800
Date First Installed: September 1982

PHALO CORP.
OMX-6900
Multiplexer Class: TDM
Input Interface: RS-232C, MIL 188C, RS-449, V.35
Maximum Input Channels:
Synchronous: 64
Asynchronous: 64
Transmission Mode: Full-Duplex
Input Transmission Rates: Asynchronous/Synchronous - 50 bps, 75 bps, 110 bps, 600 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,800 bps, 19,200 bps
Aggregate Transmission Rate: 5,000 bps
Maximum Output Lines:
Other: 2 Optical
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates: Asynchronous - 8M bps
Features: Protocol and Speed Transparent
Diagnostic Features: Remote, Local
Distribution Method: End user, OEM
Price: $3,300 to $16,000
Date First Installed: September 1982

PHILIPS ELECTRONIC INSTRUMENTS
FLEXPAC PAD
Input Interface: RS-232C, CCITT V.24/V.28
Maximum Input Channels:
Asynchronous: 15
Transmission Mode: Full-Duplex
Input Transmission Rates: Asynchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,200 bps, 2,400 bps, 4,800 bps, 9,600 bps
Maximum Output Lines:
Synchronous: 1
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates: Synchronous - 1,200 bps, 2,400 bps, 4,800 bps, 9,600 bps, 19,200 bps
Communications Protocols: HDLC (CCITT X.25 Level 2), CCITT X.25 (Level 3)
Features: Automatic Speed Detection, Downline Loading (On-Line Reconfiguration), Port Contention, Switching, Operational and Statistical Reports, Flow Control, Programmable, Network Monitor
Diagnostic Features: Remote, Local
Distribution Method: End user, Third-party
Number Installed to Date: 500 - 1,000
(See Vendor Profile Page V-23)

PHOENIX DIGITAL CORP.
BABY KNET
Multiplexer Class: Statistical
Input Interface: RS-232C, CCITT V.24/V.28
Transmission Mode: Full-Duplex
Input Transmission Rates: Asynchronous - 50 bps, 75 bps, 110 bps, 600 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,800 bps, 9,600 bps
Aggregate Transmission Rate: 1,152 bps
Maximum Output Lines:
Asynchronous: 1
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates: Synchronous - 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps
Communications Protocols: HDLC (CCITT X.205 Level-2)
Features: Automatic Speed Detection (Autobaud), Data Compression, Downline Loading (On-Line Reconfiguration), Automatic Repeat Request, Polling, Port Contention, Switching, Operational and Statistical Reports, Flow Control, Programmable, Network Monitor
Diagnostic Features: Remote, Local
Distribution Method: Third-party
Price: $1,450 to $2,400
Date First Installed: December 1982
Number Installed to Date: 100 - 600
(See Vendor Profile Page V-23)

PHOENIX DIGITAL CORP.
DPAC/PTX-1
Multiplexer Class: TDM
Input Interface: RS-232C, RS-422, CCITT V.24/V.28, 20 mA and 60 mA Current Loop, HDLC
Maximum Input Channels:
Synchronous: 19
Asynchronous: 19
Transmission Mode: Half-Duplex, Full-Duplex, Echoplex
Input Transmission Rates: Synchronous - 50 bps, 75 bps; Asynchronous/Synchronous - 110 bps, 600 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,800 bps, 4,800 bps, 7,800 bps, 9,800 bps, 19,200 bps
Aggregate Transmission Rate: 10,000 bps
Maximum Output Lines:
Synchronous: 19
Asynchronous: 19
Output Transmission Mode: Half-Duplex, Full-Duplex, Echoplex
Output Line Transmission Rates: Synchronous - 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,800 bps, 14,400 bps, 19,200 bps, 56,000 bps
Communications Protocols: HDLC (CCITT X.205 Level 2), SDLC, CCITT X.25 (Level 3), Ascii, Optonet
Features: Data Compression, Protocol Conversion, Downline Loading (On-Line Reconfiguration), Automatic Repeat Request, Flyback Buffering Delay, Port Contention, Switching, Operational and Statistical Reports, Flow Control, Programmable, Network Monitor
Diagnostic Features: Remote, Local
Distribution Method: OEM
Price: $7,000 to $12,000
Date First Installed: July 1982
Number Installed to Date: Under 100

PHOENIX DIGITAL CORP.
DPAC-39
Multiplexer Class: TDM
Input Interface: RS-232C, RS-422, CCITT V.24/V.28, 20 mA and 60 mA Current Loop
Maximum Input Channels:
Synchronous: 19
Asynchronous: 19
Transmission Mode: Half-Duplex, Full-Duplex, Echoplex
Input Transmission Rates: Synchronous - 50 bps, 75 bps; Asynchronous/Synchronous - 110 bps, 600 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,800 bps, 4,800 bps, 7,200 bps, 9,800 bps, 19,200 bps
Aggregate Transmission Rate: 10,000 bps
Maximum Output Lines:
Synchronous: 16
Asynchronous: 19
Output Transmission Mode: Half-Duplex, Full-Duplex, Echoplex
Output Line Transmission Rates: Synchronous - 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,800 bps, 14,400 bps, 19,200 bps, 56,000 bps
Communications Protocols: HDLC (CCITT X.205 Level 2), SDLC, CCITT X.25 (Level 3), Ascii, Optonet
Features: Data Compression, Protocol Conversion, Downline Loading (On-Line Reconfiguration), Automatic Repeat Request, Flyback Buffering Delay, Polling, Port Contention, Switching, Operational and Statistical Reports, Flow Control, Programmable, Network Monitor
Diagnostic Features: Remote, Local
Distribution Method: OEM
Price: $5,000 to $9,000
Date First Installed: June 1980
Number Installed to Date: Under 100

PRENTICE CORP.
SNP 1161
Multiplexer Class: Statistical
Input Interface: RS-232C
Maximum Input Channels:
Synchronous: 1
Transmission Mode: Full-Duplex
Input Transmission Rates: Asynchronous - 110 bps, 300 bps, 600 bps, 1,200 bps, 2,400 bps, 4,800 bps, 9,600 bps,
Aggregate Transmission Rate: 192 bps
Maximum Output Lines:
Asynchronous: 1

Output Transmission Mode: Full-Duplex
Output Line Transmission Rates: Synchronous - 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps
Communications Protocols: HDLC Modified
Features: Downline Loading (On-Line Reconfiguration), Automatic Repeat Request, Polling, Flow Control
Diagnostic Features: Remote
Distribution Method: Third-party
Price: $995
Date First Installed: April 1981
Number Installed to Date: 100 - 500
(See Vendor Profile Page V-24)

PRENTICE CORP.
SNP 1102
Multiplexer Class: Statistical
Input Interface: RS-232C, CCITT V.24/V.28
Maximum Input Channels:
Synchronous: 2
Transmission Mode: Full-Duplex
Input Transmission Rates: Asynchronous - 110 bps, 300 bps, 600 bps, 1,200 bps, 2,400 bps, 4,800 bps, 9,600 bps
Aggregate Transmission Rate: 192 bps
Maximum Output Lines:
Asynchronous: 1
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates: Synchronous - 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps; Asynchronous/Synchronous - 1,200 bps to 9,600 bps
Communications Protocols: Modified HDLC
Features: Downline Loading (On-Line Reconfiguration), Automatic Repeat Request, Polling, Flow Control
Diagnostic Features: Remote
Distribution Method: End user, Third-party
Price: $995
Date First Installed: April 1981
Number Installed to Date: 100 - 500

PRENTICE CORP.
SNP 1104
Multiplexer Class: Statistical
Input Interface: RS-232C, CCITT V.24/V.28
Maximum Input Channels:
Synchronous: 4
Transmission Mode: Full-Duplex
Input Transmission Rates: Asynchronous - 110 bps, 150 bps, 300 bps, 600 bps, 1,200 bps, 2,400 bps, 4,800 bps, 9,600 bps
Aggregate Transmission Rate: 192 bps
Maximum Output Lines:
Asynchronous: 1
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates: Synchronous - 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps; Asynchronous/Synchronous - 1,200 bps to 9,600 bps
Communications Protocols: Modified HDLC
Features: Downline Loading (On-Line Reconfiguration), Automatic Repeat Request, Polling, Flow Control
Diagnostic Features: Remote
Distribution Method: Third-party
Price: $1,295
Date First Installed: October 1981
Number Installed to Date: 500 - 1,000

PRENTICE CORP.
SNP 1208
Multiplexer Class: Statistical
Input Interface: RS-232C, CCITT V.24/V.28
Maximum Input Channels:
Synchronous: 8
Transmission Mode: Full-Duplex
Input Transmission Rates: Asynchronous - 110 bps, 150 bps, 300 bps, 600 bps, 1,200 bps, 2,400 bps, 4,800 bps, 9,600 bps
Maximum Output Lines:
Asynchronous: 1
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates: Synchronous - 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps, Asynchronous/Synchronous - 1,200 bps to 9,600 bps
Communications Protocols: Modified HDLC
Features: Automatic Speed Detection (Autobaud), Downline Loading (On-Line Reconfiguration), Automatic Repeat Request, Polling, Flow Control
Diagnostic Features: Remote, Local
Distribution Method: Third-party
Price: $1,495 to $2,295
Date First Installed: August 1982
Number Installed to Date: 100 - 500

PRENTICE CORP.
SNP 1209
Multiplexer Class: Statistical
Input Interface: RS-232C, CCITT V.24/V.28
Maximum Input Channels:
Synchronous: 8
Asynchronous: 1
Transmission Mode: Full-Duplex
Input Transmission Rates: Asynchronous - 110 bps, 150 bps, 300 bps; Asynchronous/Synchronous - 600 bps, 1,200 bps, 2,400 bps, 4,800 bps, 9,600 bps; Synchronous - 1,800 bps, 3,600 bps, 7,200 bps
Aggregate Transmission Rate: 192 bps
Maximum Output Lines:
Asynchronous: 1
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates: Synchronous - 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps, Asynchronous/Synchronous - 1,200 to 9,600 bps
Communications Protocols: Modified HDLC
Features: Automatic Speed Detection (Autobaud), Downline Loading (On-Line Reconfiguration), Automatic Repeat Request, Flow Control
Diagnostic Features: Remote, Local
Distribution Method: Third-party
Price: $2,095 to $2,795
Date First Installed: November 1983
Number Installed to Date: Under 100

RACAL-MILGO, INC.
OMNIMUX 60
Multiplexer Class: Statistical
Input Interface: RS-232C, CCITT V.24/V.28
Maximum Input Channels:
Synchronous: 8
Asynchronous: 4
Transmission Mode: Half-Duplex, Full-Duplex, Echoplex
Input Transmission Rates: Asynchronous/Synchronous - 50 bps to 9,600 bps
Aggregate Transmission Rate: 192 bps
Maximum Output Lines:
Asynchronous: 2
Output Transmission Mode: Half-Duplex, Full-Duplex, Echoplex
Output Line Transmission Rates: Asynchronous/Synchronous - Up to 19,200 bps
Communications Protocols: HDLC, (CCITT X.205 Level 2), Modified Synchronous Input Protocol
Features: Downline Loading (On-Line Reconfiguration), Programmable, Network Monitor, Speed Conversion
Diagnostic Features: Remote, Local
Distribution Method: End user
(See Vendor Profile Page V-24)

RACAL-MILGO, INC.
OMNIMUX 30
Multiplexer Class: Statistical
Input Interface: RS-232C, CCITT V.24/V.28
Maximum Input Channels:
Synchronous: 8
Transmission Mode: Half-Duplex
Input Transmission Rates: Asynchronous - 50 bps, 75 bps, 110 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps
Aggregate Transmission Rate: 96 bps
Maximum Output Lines:
Synchronous: 8
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates: Asynchronous - 4,800 bps, 9,600 bps
Communications Protocols: HDLC (CCITT X.205 Level 2), Modified Half-Duplex
Features: Downline Loading (On-Line Reconfiguration), Network Monitor, Aggregate and Channel Loopback
Distribution Method: End user
Price: $1,600 to $2,600

RACAL-MILGO, INC.
OMNIMUX 40
Multiplexer Class: Statistical
Input Interface: RS-232C, CCITT V.24/V.28
Maximum Input Channels:
Synchronous: 9
Transmission Mode: Half-Duplex, Full-Duplex
Input Transmission Rates: Asynchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 7,200 bps, 9,600 bps; 19,800 bps
Aggregate Transmission Rate: 96 bps
Maximum Output Lines:
Synchronous: 9
Output Line Transmission Rates: Asynchronous/Synchronous - Up to 9,600 bps
Communications Protocols: Modified HDLC (CCITT X.205 Level 2)
Features: Automatic Speed Detection (Autobaud), Flyback Buffering Delay, Programmable, Network Monitor, Autobaud and Flow Control Optional
Diagnostic Features: Remote, Local
Distribution Method: End user
Price: $1,600 to $2,600

RACAL-MILGO, INC.
OMNIMUX 100
Multiplexer Class: Statistical
Input Interface: RS-232C, CCITT V.24/V.28
Maximum Input Channels:
Synchronous: 9
Asynchronous: 16
Transmission Mode: Half-Duplex, Full-Duplex, Echoplex
Input Transmission Rates: Synchronous - 50 bps to 9,600 bps
Maximum Output Lines:
Asynchronous: 2
Output Transmission Mode: Half-Duplex, Full-Duplex, Echoplex
Output Line Transmission Rates: Asynchronous/Synchronous - Up to 19,200 bps
Communications Protocols: Modified HDLC (CCITT X.205 Level 2)
Features: Downline Loading (On-Line Reconfiguration), Programmable, Network Monitor
Diagnostic Features: Remote, Local
Distribution Method: End user

RACAL-MILGO, INC.
OMNIMUX 200
Multiplexer Class: Statistical
Input Interface: RS-232C, CCITT V.24/V.28
Maximum Input Channels:
Synchronous: 32
Asynchronous: 8
Transmission Mode: Half-Duplex, Full-Duplex, Echoplex
Input Transmission Rates: Synchronous - 50 to 9,600 bps
Aggregate Transmission Rate: 192 bps
Maximum Output Lines:
Asynchronous: 2
Output Line Transmission Rates: Asynchronous/Synchronous - Up to 19,200 bps
Communications Protocols: Modified HDLC (CCITT X.205 Level 2)
Features: Downline Loading (On-Line Reconfiguration), Flow Control, Programmable, Network Monitor

Diagnostic Features: Remote, Local

RACAL-VADIC
SCOTSMAN III
Multiplexer Class: Network Concentrator
Input Interface: RS-232C, CCITT V.24/V.28
Maximum Input Channels:
Synchronous: 4
Asynchronous: 4
Transmission Mode: Full-Duplex
Input Transmission Rates: Asynchronous - 75 bps, 110 bps, 300 bps, 600 bps, 9,600 bps, Asynchronous/Synchronous - 1,200 bps, 2,400 bps, 4,800 bps, 7,200 bps, Synchronous - 19,200 bps
Aggregate Transmission Rate: 192 bps
Output Line Transmission Rates: Asynchronous - 9,600 bps
Communications Protocols: HDLC (CCITT X.205 Level 2), SDLC, CCITT X.25 (Level 3), BSC, Ascii
Features: Data Compression, Protocol Conversion, Automatic Repeat Request, Flyback Buffering Delay, Operational and Statistical Reports, Network Monitor
Diagnostic Features: Remote, Local
Date First Installed: December 1983
Number Installed to Date: Under 100
(See Vendor Profile Page V-25)

RACAL-VADIC
SCOTSMAN I
Multiplexer Class: Statistical
Input Interface: RS-232C, CCITT V.24/V.28
Maximum Input Channels:
Synchronous: 9
Asynchronous: 9
Transmission Mode: Half-Duplex, Full-Duplex
Input Transmission Rates: Asynchronous - 50 bps, 75 bps, 110 bps, 150 bps, 300 bps, 600 bps; Asynchronous/Synchronous - 1,200 bps, 1,800 bps, 2,400 bps; 4,800 bps, 9,800 bps, Synchronous - 3,600 bps, 7,200 bps
Aggregate Transmission Rate: 96 bps
Output Transmission Mode: Echoplex
Features: Automatic Speed Detection (Autobaud), Downline Loading (On-Line Reconfiguration), Automatic Repeat Request, Flow Control
Distribution Method: End user
Price: $1,950
Date First Installed: July 1983
Number Installed to Date: Under 100

RACAL-VADIC
SCOTSMAN II
Multiplexer Class: Statistical
Input Interface: RS-232C, CCITT V.24/V.28
Maximum Input Channels:
Synchronous: 9
Asynchronous: 9
Transmission Mode: Half-Duplex, Full-Duplex
Input Transmission Rates: Asynchronous - 50 bps, 75 bps, 110 bps, 134 bps, 150 bps, 200 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,800 bps
Aggregate Transmission Rate: 768 bps
Maximum Output Lines:
Asynchronous: 1
Output Line Transmission Rates: Synchronous - 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps, 14,400 bps
Communications Protocols: Modified HDLC
Features: Automatic Speed Detection (Autobaud), Downline Loading (On-Line Reconfiguration), Automatic Repeat Request, Switching, Operational and Statistical Reports, Flow Control, Network Monitor
Diagnostic Features: Remote, Local
Distribution Method: End user
Price: $2,950 to $4,800
Number Installed to Date: Under 100

RIANDA ELECTRONICS
MODEL 1600
Multiplexer Class: TDM
Input Interface: RS-232C
Maximum Input Channels:
Synchronous: 19
Transmission Mode: Full-Duplex
Input Transmission Rates: Asynchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps, 19,200 bps
Aggregate Transmission Rate: 3,072 bps
Maximum Output Lines:
Synchronous: 19
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates: Asynchronous - 14,400 bps
Communications Protocols: CCITT V.24
Features: Polling, Port Contention
Diagnostic Features: Local
Distribution Method: OEM
Price: $360 to $1,600
Date First Installed: January 1979
Number Installed to Date: Under 100
(See Vendor Profile Page V-25)

RIANDA ELECTRONICS
MODEL 2600
Multiplexer Class: TDM
Input Interface: RS-232C
Maximum Input Channels:
Synchronous: 19
Transmission Mode: Full-Duplex
Input Transmission Rates: Asynchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,600 bps, 9,600 bps, 19,200 bps
Aggregate Transmission Rate: 3,072 bps
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates: Asynchronous - 14,400 bps
Communications Protocols: 20 mA Current Loop
Features: Polling, Port Contention, Parallel Print Port, Masterfly
Diagnostic Features: Local
Distribution Method: OEM
Price: $800 to $1,440
Date First Installed: January 1977
Number Installed to Date: 100 - 500

RIXON, INC.
DCX840 NETWORK MUX
Multiplexer Class: Network Concentrator
Input Interface: RS-232C, CCITT V.24/V.28
Maximum Input Channels:
Synchronous: 240
Input Transmission Rates: Asynchronous - 75 bps, 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps
Aggregate Transmission Rate: 384 bps
Maximum Output Lines:
Asynchronous: 15
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates: Synchronous - 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps, 14,400 bps, 19,200 bps, 56,000 bps, Asynchronous/Synchronous - 72,000 bps
Communications Protocols: HDLC (CCITT X.205 Level 2)
Features: Automatic Speed Detection (Autobaud), Downline Loading-(On-Line Reconfiguration), Flyback Buffering Delay, Flow Control
Diagnostic Features: Local
(See Vendor Profile Page V-25)

RIXON, INC.
DCX850 SWITCHING MUX
Multiplexer Class: Network Concentrator
Input Interface: RS-232C, CCITT V.24/V.28
Maximum Input Channels:
Synchronous: 240
Transmission Mode: Half-Duplex, Full-Duplex, Echoplex
Input Transmission Rates: Asynchronous - 75 bps, 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps
Aggregate Transmission Rate: 384 bps
Maximum Output Lines:
Asynchronous: 14
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates: Synchronous - 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps, 14,400 bps, 19,200 bps, 56,000 bps, Asynchronous/Synchronous - 72,000 bps
Communications Protocols: HDLC (CCITT X.205 Level 2)
Features: Data Compression, Downline Loading (On-Line Reconfiguration), Flyback Buffering Delay, Port Contention, Switching, Flow Control
Diagnostic Features: Local
Price: $80,000

RIXON, INC.
COMMUX STATISTICAL MULTIPLEXER PLUS
Multiplexer Class: Statistical
Input Interface: RS-232C, CCITT V.24/V.28
Maximum Input Channels:
Synchronous: 9
Transmission Mode: Full-Duplex, Echoplex
Input Transmission Rates: Asynchronous - 75 bps, 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps
Aggregate Transmission Rate: 384 bps
Maximum Output Lines:
Asynchronous: 1
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates: Synchronous - 4,800 bps
Communications Protocols: HDLC (CCITT X.205 Level 2)
Features: Automatic Speed Detection (Autobaud), Flyback Buffering Delay
Diagnostic Features: Local
Distribution Method: End user

RIXON, INC.
DCX816 STATISTICAL MULTIPLEXER
Multiplexer Class: Statistical
Input Interface: RS-232C, CCITT V.24/V.28
Maximum Input Channels:
Synchronous: 9
Transmission Mode: Full-Duplex, Echoplex
Input Transmission Rates: Asynchronous - 75 bps, 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 3,600 bps, 4,800 bps, 7,800 bps, 9,600 bps
Aggregate Transmission Rate: 384 bps
Maximum Output Lines:
Asynchronous: 1
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates: Synchronous - 1,200 bps, 14,400 bps
Communications Protocols: HDLC (CCITT X.205 Level 2)
Features: Automatic Speed Detection (Autobaud), Data Compression, Flyback Buffering Delay, Buffer Overload Protection
Diagnostic Features: Local

RIXON, INC.
DCX825 STATISTICAL MULTIPLEXER
Multiplexer Class: Statistical
Input Interface: RS-232C
Maximum Input Channels:
Synchronous: 32
Asynchronous: 4
Transmission Mode: Full-Duplex
Input Transmission Rates: Asynchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,800 bps, 3,800 bps; Asynchronous/Synchronous - 1,200

bps, 2,400 bps, 4,800 bps, 7,200 bps, 9,600 bps
Aggregate Transmission Rate: 768 bps
Maximum Output Lines:
Asynchronous: 1
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates: Synchronous - 1,200 bps, 2,400 bps, 4,800 bps, 9,600 bps, 14,400 bps; Asynchronous/Synchronous - 3,600 bps
Communications Protocols: HDLC (CCITT X.205 Level 2)
Features: Automatic Speed Detection (Autobaud), Flyback Buffering Delay
Diagnostic Features: Local

RIXON, INC.
DCX936 STATISTICAL MULTIPLEXER
Multiplexer Class: Statistical
Input Interface: RS-232C, CCITT V.24/V.28
Maximum Input Channels:
Synchronous: 60
Transmission Mode: Half-Duplex, Full-Duplex, Echoplex
Input Transmission Rates: Asynchronous - 75 bps, 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps
Aggregate Transmission Rate: 384 bps
Maximum Output Lines:
Asynchronous: 1
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates: Synchronous - 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps, 14,400 bps, 19,200 bps, 56,000 bps, Asynchronous/Synchronous - 72,000 bps
Communications Protocols: HDLC
Features: Automatic Speed Detection, Downline Loading (On-Line Reconfiguration), Flyback Buffering Delay, Flow Control
Diagnostic Features: Local

RIXON, INC.
DCX726 SYNCHRONOUS MULTIPLEXER
Multiplexer Class: TDM
Input Interface: RS-232C, CCITT V.24/V.28
Maximum Input Channels:
Asynchronous: 4
Transmission Mode: Full-Duplex, Echoplex
Input Transmission Rates: Synchronous - 1,200 bps, 2,400 bps, 4,800 bps, 7,200 bps, 9,600 bps
Aggregate Transmission Rate: 192 bps
Maximum Output Lines:
Asynchronous: 1
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates: Synchronous - 4,800 bps, 9,600 bps, 14,400 bps, 19,200 bps, Asynchronous/Synchronous - 7,200 bps
Communications Protocols: HDLC
Features: Data Compression, Switching
Diagnostic Features: Local

ROCKWELL INTERNATIONAL
DXM-2003
Multiplexer Class: TDM
Input Interface: DS1
Maximum Input Channels:
Asynchronous: 26
Transmission Mode: Full-Duplex
Input Transmission Rates: T-1
Aggregate Transmission Rate: 44.7M bps
Maximum Output Lines:
Asynchronous: 1
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates: 44.7M bps
Communications Protocols: 8325
Features: Automatic Speed Detection (Autobaud), Programmable, 75 Watts of Power
Distribution Method: End user
Price: $19,000
Date First Installed: November 1983
Number Installed to Date: Under 500
(See Vendor Profile Page V-25)

SCITEC CORP.
CPX 25
Multiplexer Class: Statistical
Input Interface: RS-232C
Maximum Input Channels:
Synchronous: 32
Asynchronous: 32
Transmission Mode: Half-Duplex, Full-Duplex, Echoplex
Input Transmission Rates: Asynchronous/Synchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps; Asynchronous - 19,200 bps
Aggregate Transmission Rate: 768 bps
Maximum Output Lines:
Asynchronous: 2
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates: Synchronous - 2,400 bps, 56,000 bps
Communications Protocols: HDLC (CCITT X.205 Level 2)
Features: Automatic Speed Detection (Autobaud), Data Compression, Downline Loading (On-Line Reconfiguration), Automatic Repeat Request, Flyback Buffering Delay, Flow Control, Programmable
Diagnostic Features: Local
Distribution Method: End user, OEM
Price: $1,850 to $10,000
(See Vendor Profile Page V-26)

SCITEC CORP.
ILX
Multiplexer Class: Statistical
Input Interface: RS-232C
Maximum Input Channels:
Synchronous: 32
Asynchronous: 32
Transmission Mode: Half-Duplex, Full-Duplex, Echoplex
Input Transmission Rates: Asynchronous/Synchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps, Asynchronous - 19,200 bps
Aggregate Transmission Rate: 768 bps
Maximum Output Lines:
Asynchronous: 2
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates: Synchronous - 2,400 bps, 56,000 bps
Communications Protocols: HDLC (CCITT X.205 Level 2)
Features: Automatic Speed Detection (Autobaud), Data Compression, Downline Loading (On-Line Reconfiguration), Automatic Repeat Request, Flyback Buffering Delay, Flow Control, Programmable
Diagnostic Features: Local
Distribution Method: End user, OEM
Price: $4,500 to $10,000

SCITEC CORP.
MUX 25
Multiplexer Class: Statistical
Input Interface: RS-232C
Maximum Input Channels:
Synchronous: 4
Transmission Mode: Full-Duplex, Echoplex
Input Transmission Rates: Asynchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps
Aggregate Transmission Rate: 384 bps
Maximum Output Lines:
Asynchronous: 1
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates: Synchronous - 1,200 bps, 9,600 bps
Communications Protocols: HDLC (CCITT X.205 Level 2)
Features: Automatic Speed Detection (Autobaud), Data Compression, Downline Loading (On-Line Reconfiguration), Flyback Buffering Delay, Flow Control, Programmable
Diagnostic Features: Local
Distribution Method: End user, Third-party
Price: $1,200
Date First Installed: January 1978
Number Installed to Date: 100 - 500

SCITEC CORP.
MPX
Multiplexer Class: Statistical
Input Interface: RS-232C
Maximum Input Channels:
Synchronous: 32
Asynchronous: 32
Transmission Mode: Half-Duplex, Full-Duplex, Echoplex
Input Transmission Rates: Asynchronous/Synchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7200 bps, 9,600 bps, Asynchronous - 19,200 bps
Aggregate Transmission Rate: 786 bps
Maximum Output Lines:
Asynchronous: 2
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates: Synchronous - 2,400 bps, 56,000 bps
Communications Protocols: HDLC
Features: Automatic Speed Detection (Autobaud), Data Compression, Downline Loading (On-Line Reconfiguration), Automatic Repeat Request, Flyback Buffering Delay, Flow Control, Programmable
Diagnostic Features: Local
Distribution Method: End user, OEM
Price: $4,500 to $10,000
Number Installed to Date: Under 100

SCITEC CORP.
ESPT1
Multiplexer Class: TDM
Input Interface: RS-232C, RS-449
Maximum Input Channels:
Asynchronous: 128
Transmission Mode: Full-Duplex
Input Transmission Rates: Synchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 14,400 bps, 19,200 bps, Asynchronous/Synchronous - 256K bps
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates: Synchronous - T-1
Communications Protocols: T-1
Features: Downline Loading (On-Line Reconfiguration), Programmable, Voice
Diagnostic Features: Local
Distribution Method: End user, OEM
Price: $3,800 to $35,000
Date First Installed: March 1983
Number Installed to Date: Under 100

SIERRA RESEARCH CORP.
TC-2/32
Multiplexer Class: Cable
Input Interface: RS-232C
Maximum Input Channels:
Synchronous: 60
Transmission Mode: Full-Duplex
Input Transmission Rates: Asynchronous - 9,600 bps
Maximum Output Lines:
Synchronous: 1
Asynchronous: 1
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates: Asynchronous/Synchronous - 9,600 bps
Communications Protocols: Custom
Features: Protocol Conversion, Downline Loading (On-Line Reconfiguration), Polling, Flow Control
Diagnostic Features: Local
Distribution Method: End user, OEM, Third-party
Price: $10,000

Multiplexers

Date First Installed: January 1982
Number Installed to Date: Under 100
(See Vendor Profile Page V-26)

SPERRY CORP.
SIXTEEN CHANNEL TERMINAL MULTIPLEXER
Multiplexer Class: Scan for Channel Request
Input/Interface: RS-232C, CCITT V.24/V.28
Transmission Mode: Half-Duplex, Full-Duplex
Input Transmission Rates:
Synchronous - 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps, 19,200 bps
Aggregate Transmission Rate: 192 bps
Maximum Output Lines:
Asynchronous: 16
Output Transmission Mode: Half-Duplex, Full-Duplex
Output Line Transmission Rates:
Synchronous - 2,400 bps, 4,800 bps, 9,600 bps, 14,400 bps
Communications Protocols: Transparent
Features: Polling
Diagnostic Features: Remote, Local
Distribution Method: End user
Price: $2,138
Date First Installed: April 1981
Number Installed to Date: 1,000 - 5,000
(See Vendor Profile Page V-26)

TAMPY CORP.
COMMUNICATIONS MULTIPLEXER (71-3600)
Multiplexer Class: Concentrator
Input Interface: RS-232C
Transmission Mode: Full-Duplex
Input Transmission Rates:
Asynchronous - 9,600 bps
Maximum Output Lines:
Synchronous: 16
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates:
Asynchronous - 300 bps
Communications Protocols: Ascii
Features: Downline Loading (On-Line Reconfiguration), Polling, Port Contention, Programmable, Network Monitor
Diagnostic Features: Local
Distribution Method: End user
Price: $8,000 to $8,000
Date First Installed: February 1980
Number Installed to Date: Under 100
(See Vendor Profile Page V-29)

TAU-TRON, INC.
INTRAPLEX T.D.M. 198
Multiplexer Class: TDM
Input Interface: RS-232C, RS-449
Maximum Input Channels:
Synchronous: 240
Asynchronous: 240
Transmission Mode: Full-Duplex
Input Transmission Rates:
Asynchronous/Synchronous - 110 bps
Aggregate Transmission Rate: 1.3M bps
Maximum Output Lines:
Asynchronous: 1
Output Transmission Rate: 1.5M bps
Communications Protocols: Transparent to Protocol
Features: Polling, Switching, Programmable
Diagnostic Features: Local
Distribution Method: End user
Price: $3,500 to $8,000
Date First Installed: July 1983
(See Vendor Profile Page V-29)

TELEPROCESSING PRODUCTS, INC.
TP-212
Multiplexer Class: Statistical
Input Interface: RS-232C
Maximum Input Channels:
Synchronous: 2
Asynchronous: 2
Transmission Mode: Half-Duplex, Full-Duplex, Echoplex
Input Transmission Rates:
Asynchronous - 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps
Aggregate Transmission Rate: 192 bps
Maximum Output Lines:
Asynchronous: 1
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates:
Synchronous - 9,600 bps
Communications Protocols: Ascii
Features: Automatic Repeat Request, Flyback Buffering Delay
Diagnostic Features: No
Distribution Method: End user, Third-party
Price: $850
Date First Installed: June 1981
Number Installed to Date: 100 - 500
(See Vendor Profile Page V-30)

TELEPROCESSING PRODUCTS, INC.
TP-214
Multiplexer Class: Statistical
Input Interface: RS-232C
Maximum Input Channels:
Asynchronous: 4
Transmission Mode: Half-Duplex, Full-Duplex, Echoplex
Input Transmission Rates:
Asynchronous - 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps
Aggregate Transmission Rate: 192 bps
Maximum Output Lines:
Asynchronous: 1
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates:
Synchronous - 9,600 bps
Communications Protocols: Ascii
Features: Programmable, Automatic Repeat Request, Flyback Buffering Delay
Distribution Method: End user, Third-party
Price: $1,350
Date First Installed: January 1984
Number Installed to Date: Under 100

TELEPROCESSING PRODUCTS, INC.
TP-400 MULTI-DROP STAT MUX
Multiplexer Class: Statistical
Input Interface: RS-232C
Maximum Input Channels:
Synchronous: 32
Transmission Mode: Half-Duplex, Full-Duplex, Echoplex
Input Transmission Rates:
Asynchronous - 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps
Aggregate Transmission Rate: 3,072 bps
Maximum Output Lines:
Asynchronous: 1
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates:
Synchronous - 9,600 bps
Communications Protocols: / scii
Features: Data Compression, Downline Loading (On-Line Reconfiguration), Automatic Repeat Request, Flyback Buffering Delay, Polling, Port Contention, Operational and Statistical Reports, Flow Control, Network Monitor
Diagnostic Features: Local
Distribution Method: End user, Third-party
Price: $4,000 to $2,500
Date First Installed: June 1981
Number Installed to Date: 100 - 500

TELLABS, INC.
330A-F DATAPLEXERS
Multiplexer Class: Statistical
Input Interface: RS-232C, CCITT V.24/V.28
Maximum Input Channels:
Synchronous: 32
Asynchronous: 9
Transmission Mode: Full-Duplex
Input Transmission Rates:
Asynchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps
Aggregate Transmission Rate: 3,072 bps
Maximum Output Lines:
Asynchronous: 2
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates:
Synchronous - 1,200 bps
Asynchronous/Synchronous - 76.8K bps
Communications Protocols: CCITT X.25 Level 2
Features: Automatic Speed Detection, Downline Loading (On-Line Reconfiguration), Automatic Repeat Request, Operational and Statistical Reports, Flow Control, Programmable, Network Monitor
Diagnostic Features: Remote, Local
Price: $2,400 to $11,800
Date First Installed: 1982
Number Installed to Date: Under 100
(See Vendor Profile Page V-30)

TELLABS, INC.
331 XPLEXER
Multiplexer Class: Concentrator, Data Switching
Input Interface: RS-232C, CCITT V.24/V.28
Maximum Input Channels:
Synchronous: 32
Asynchronous: 8
Transmission Mode: Full-Duplex
Input Transmission Rates:
Asynchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps
Aggregate Transmission Rate: 3,072 bps
Maximum Output Lines:
Asynchronous: 16
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates:
Synchronous - 1,200 bps, Asynchronous/Synchronous - Up to 76.8K bps
Communications Protocols: Subset of CCITT X.25 Level 2
Features: Automatic Speed Detection (Autobaud), Automatic Repeat Request, Port Contention, Switching, Operational and Statistical Reports, Flow Control, Programmable, Network Monitor, Flexible Network Topology
Diagnostic Features: Remote, Local
Distribution Method: End user, Third-party
Price: $2,900 to $12,800
Date First Installed: 1983

TELSAC, INC.
AMUX-1
Multiplexer Class: TDM
Input Interface: RS-232C
Maximum Input Channels:
Synchronous: 4
Transmission Mode: Full-Duplex
Input Transmission Rates:
Asynchronous - 300 bps, 600 bps, 1,200 bps, 2,400 bps, 4,800 bps
Aggregate Transmission Rate: 192 bps
Maximum Output Lines:
Synchronous: 4
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates:
Asynchronous - 1,200 bps, 2,400 bps, 4,800 bps
Communications Protocols: Ascii
Diagnostic Features: Local
Distribution Method: End user
Price: $800
Date First Installed: January 1981
Number Installed to Date: Under 100
(See Vendor Profile Page V-30)

TELTONE CORP.
M-990
Multiplexer Class: Statistical
Input Interface: RS-232C, CCITT V.24/V.28
Maximum Input Channels:
Synchronous: 32
Transmission Mode: Full-Duplex, Echoplex
Input Transmission Rates:
Asynchronous - 300 bps, 600 bps; Synchronous - 9,600 bps
Aggregate Transmission Rate: 3,072 bps

Maximum Output Lines:
Asynchronous: 2
Output Line Transmission Rates:
Asynchronous/Synchronous - 76,800 bps
Communications Protocols: HDLC, SDLC, Subset of CCITT X.25 Level 2
Features: Automatic Speed Detection (Autobaud), Protocol Conversion, Downline Loading (On-Line Reconfiguration), Automatic Repeat Request, Flyback Buffering Delay, Polling, Operational and Statistical Reports, Programmable
Diagnostic Features: Remote, Local
Distribution Method: End user
Date First Installed: July 1983
Number Installed to Date: Under 100
(See Vendor Profile Page V-30)

TIMEPLEX, INC.
NETWORKING MICROPLEXER NM88
Multiplexer Class: Statistical
Input Interfaces: RS-232C, RS-422, CCITT V.24/V.28, MIL 188C
Maximum Input Channels:
Synchronous: 96
Asynchronous: 96
Transmission Mode: Half-Duplex, Full-Duplex
Input Transmission Rates:
Asynchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,800 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps
Aggregate Transmission Rate: 9,216 bps
Maximum Output Lines:
Asynchronous: 8
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates:
Synchronous - 14,400 bps
Communications Protocols: HDLC
Features: Downline Loading (On-Line Reconfiguration), Automatic Repeat Request, Flyback Buffering Delay, Port Contention, Switching, Operational and Statistical Reports, Flow Control, Programmable, Network Monitor
Diagnostic Features: Remote, Local
Distribution Method: End user
Price: $17,000
Date First Installed: 1983
(See Vendor Profile Page V-31)

TIMEPLEX, INC.
NETWORKING MICROPLEXER NM144
Multiplexer Class: Statistical
Input Interfaces: RS-232C, RS-422, CCITT V.24/V.28, MIL 188C
Maximum Input Channels:
Synchronous: 144
Asynchronous: 144
Transmission Mode: Half-Duplex, Full-Duplex
Input Transmission Rates:
Asynchronous - Up to 9,600 bps
Aggregate Transmission Rate: 13,800 bps
Maximum Output Lines:
Asynchronous: 8
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates:
Synchronous - 14,400 bps
Communications Protocols: HDLC
Features: Downline Loading (On-Line Reconfiguration), Automatic Repeat Request, Flyback Buffering Delay, Port Contention, Switching, Operational and Statistical Reports, Flow Control, Programmable, Network Monitor
Diagnostic Features: Remote, Local
Distribution Method: End user
Price: $17,000
Date First Installed: 1983

TIMEPLEX, INC.
QUAD SWITCHING MICROPLEXER QSM
Multiplexer Class: Statistical
Input Interfaces: RS-232C, RS-422, CCITT V.24/V.26, MIL 188C
Maximum Input Channels:
Synchronous: 48
Asynchronous: 48
Transmission Mode: Half-Duplex, Full-Duplex
Input Transmission Rates:
Asynchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,800 bps, 9,600 bps
Aggregate Transmission Rate: 4,608 bps
Maximum Output Lines:
Asynchronous: 4
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates:
Synchronous - 14,400 bps
Communications Protocols: HDLC
Features: Downline Loading (On-Line Reconfiguration), Automatic Repeat Request, Flyback Buffering Delay, Port Contention, Switching, Operational and Statistical Reports, Flow Control, Programmable, Network Monitor
Diagnostic Features: Remote, Local
Distribution Method: End user
Price: $7,525
Date First Installed: 1983

TIMEPLEX, INC.
SERIES II MICROPLEXER MII
Multiplexer Class: Statistical
Input Interfaces: RS-232C, RS-422, CCITT V.24/V.28, MIL 188C
Maximum Input Channels:
Synchronous: 8
Asynchronous: 8
Transmission Mode: Half-Duplex, Full-Duplex
Input Transmission Rates:
Asynchronous/Synchronous - 50 bps, 75 bps, 300 bps, 600 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps
Aggregate Transmission Rate: 768 bps
Maximum Output Lines:
Asynchronous: 2
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates:
Synchronous - 9,600 bps, 14,400 bps, 19,200 bps
Communications Protocols: HDLC
Features: Downline Loading (On-Line Reconfiguration), Automatic Repeat Request, Operational and Statistical Reports, Flow Control, Programmable, Network Monitor
Diagnostic Features: Remote, Local
Distribution Method: End user
Price: $1,625 to $2,650
Date First Installed: 1979

TIMEPLEX, INC.
SERIES II MICROPLEXER MIII
Multiplexer Class: Statistical
Input Interfaces: RS-232C, RS-422, CCITT V.24/V.28, MIL 188C
Maximum Input Channels:
Synchronous: 24
Asynchronous: 24
Transmission Mode: Half-Duplex, Full-Duplex
Input Transmission Rates:
Asynchronous/Synchronous - 50 bps, Asynchronous - 75 bps, 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps; 7,800 bps, 9,600 bps
Aggregate Transmission Rate: 2,304 bps
Maximum Output Lines:
Asynchronous: 2
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates:
Synchronous - 9,600 bps, 14,400 bps, 19,200 bps, Asynchronous - 14,400 bps
Communications Protocols: HDLC
Features: Downline Loading (On-Line Reconfiguration), Automatic Repeat Request, Flyback Buffering Delay, Operational and Statistical Reports, Flow Control, Programmable, Network Monitor
Diagnostic Features: Remote, Local
Distribution Method: End user
Price: $2,655 to $3,420
Date First Installed: 1980

TIMEPLEX, INC.
SERIES II MICROPLEXER MIII
Multiplexer Class: Statistical
Input Interfaces: RS-232C, RS-422, CCITT V.24/V.28, MIL 188C
Maximum Input Channels:
Synchronous: 48
Asynchronous: 48
Transmission Mode: Half-Duplex, Full-Duplex
Input Transmission Rates:
Asynchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,800 bps, 9,600 bps
Aggregate Transmission Rate: 4,608 bps
Maximum Output Lines:
Asynchronous: 2
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates:
Synchronous - 9,600 bps, 14,400 bps, 19,200 bps
Communications Protocols: HDLC
Features: Downline Loading (On-Line Reconfiguration), Automatic Repeat Request, Flyback Buffering Delay, Port Contention, Switching, Operational and Statistical Reports, Flow Control, Programmable, Network Monitor
Diagnostic Features: Remote, Local
Distribution Method: End user
Price: $4,890 to $5,150
Date First Installed: 1981

TIMEPLEX, INC.
SWITCHING MICROPLEXER SM8
Multiplexer Class: Statistical
Input Interfaces: RS-232C, RS-422, CCITT V.24/V.28, MIL 188C
Maximum Input Channels:
Synchronous: 8
Asynchronous: 8
Transmission Mode: Half-Duplex, Full-Duplex
Input Transmission Rates:
Asynchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps
Aggregate Transmission Rate: 768 bps
Maximum Output Lines:
Asynchronous: 2
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates:
Synchronous - 9,600 bps, 14,400 bps
Communications Protocols: HDLC
Features: Downline Loading (On-Line Reconfiguration), Automatic Repeat Request, Flyback Buffering Delay, Port Contention, Switching, Operational and Statistical Reports, Flow Control, Programmable, Network Monitor
Diagnostic Features: Remote, Local
Distribution Method: End user
Price: $1,800 to $2,625
Date First Installed: 1981

TIMEPLEX, INC.
SWITCHING MICROPLEXER SM24
Multiplexer Class: Statistical
Input Interfaces: RS-232C, RS-422, CCITT V.24/V.28, MIL 188C
Maximum Input Channels:
Synchronous: 24
Asynchronous: 24
Transmission Mode: Half-Duplex, Full-Duplex
Input Transmission Rates:
Asynchronous - Up to 9,600 bps
Aggregate Transmission Rate: 2,304 bps
Maximum Output Lines:
Asynchronous: 2
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates:
Synchronous - 9,600 bps, 14,400 bps
Communications Protocols: HDLC
Features: Downline Loading, Automatic
Repeat Request, Flyback Buffering Delay, Port Contention, Switching, Operational and Statistical Reports, Flow Control, Programmable, Network Monitor
Diagnostic Features: Remote, Local
Distribution Method: End user
Price: $2,830 to $3,855
Date First Installed: 1981

TIMEPLEX, INC.
SWITCHING MICROPLEXER SM48
Multiplexer Class: Statistical
Input Interfaces: RS-232C, RS-422, CCITT V.24/V.28, MIL 188C
Maximum Input Channels:

Synchronous: 48
Asynchronous: 48
Transmission Mode: Half-Duplex, Full-Duplex
Input Transmission Rates: Asynchronous - Up to 9,600 bps
Aggregate Transmission Rate: 4,608 bps
Maximum Output Lines:
Asynchronous: 2
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates: Synchronous - 9,600 bps, 14,400 bps
Communications Protocols: HDLC
Features: Downline Loading (On-Line Reconfiguration), Automatic Repeat Request, Flyback Buffering Delay, Port Contention, Switching, Statistical Reports, Flow Control, Programmable, Network Monitor
Diagnostic Features: Remote, Local
Distribution Method: End user
Price: $4,125 to $5,150
Date First Installed: 1981

TIMEPLEX, INC.
WIDEBAND MICROPLEXER WM48
Multiplexer Class: Statistical
Input Interface: RS-232C, RS-422, CCITT V.24/V.28, MIL 188C
Maximum Input Channels:
Synchronous: 48
Asynchronous: 48
Transmission Mode: Half-Duplex, Full-Duplex
Input Transmission Rates: Asynchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps
Aggregate Transmission Rate: 4,608 bps
Maximum Output Lines:
Asynchronous: 1
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates: Asynchronous/Synchronous - 72,000 bps
Communications Protocols: HDLC
Features: Downline Loading (On-Line Reconfiguration), Automatic Repeat Request, Flyback Buffering Delay, Operational and Statistical Reports, Flow Control, Programmable, Network Monitor
Diagnostic Features: Remote, Local
Distribution Method: End user
Price: $6,025
Date First Installed: 1982

TIMEPLEX, INC.
LINK1-T1 FACILITIES MANAGEMENT SYSTEM
Multiplexer Class: TDM
Input Interface: RS-232C, RS-422, MIL 188C
Maximum Input Channels:
Synchronous: 44
Asynchronous: 44
Transmission Mode: Full-Duplex
Input Transmission Rates: Asynchronous/Synchronous - Up to 51,000 bps
Maximum Output Lines:
Asynchronous: 1
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates: Asynchronous - T-1
Features: Operational and Statistical Reports, Flow Control, Programmable, Network Monitor
Diagnostic Features: Remote, Local
Distribution Method: End user
Date First Installed: 1983

TIMEPLEX, INC.
TIMEPLEXER TIG TDM
Multiplexer Class: TDM
Input Interface: RS-232C, RS-422, CCITT V.24/V.28, MIL 188C
Maximum Input Channels:
Synchronous: 19
Asynchronous: 19
Transmission Mode: Half-Duplex, Full-Duplex
Input Transmission Rates: Asynchronous - 2,400 bps; Synchronous - 9,600 bps
Maximum Output Lines:
Asynchronous: 1
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates: Synchronous - 14,400 bps
Features: Operational and Statistical Reports, Flow Control, Programmable
Diagnostic Features: Remote, Local
Distribution Method: End user
Price: $1,725
Date First Installed: 1971

TIMEPLEX, INC.
TIMEPLEXER T-28 TDM
Multiplexer Class: TDM
Input Interface: RS-232C, RS-422, CCITT V.24/V.28, MIL 188C
Transmission Mode: Half-Duplex, Full-Duplex
Input Transmission Rates: Asynchronous - 2,400 bps; Synchronous - 9,600 bps
Maximum Output Lines:
Asynchronous: 1
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates: Synchronous - 14,400 bps
Features: Operational and Statistical Reports, Flow Control, Programmable
Diagnostic Features: Remote, Local
Distribution Method: End user
Price: $2,050

TIMEPLEX, INC.
TIMEPLEXER T-96 TDM
Multiplexer Class: TDM
Input Interface: RS-232C, RS-422, CCITT V.24/V.28, MIL 188C
Maximum Input Channels:
Synchronous: 96
Asynchronous: 96
Transmission Mode: Half-Duplex, Full-Duplex
Input Transmission Rates: Asynchronous - 19,200 bps; Asynchronous/Synchronous - 64,000 bps
Maximum Output Lines:
Asynchronous: 3
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates: Asynchronous/Synchronous - Up to 256,000 bps
Features: Operational and Statistical Reports, Flow Control, Programmable
Diagnostic Features: Remote, Local
Distribution Method: End user
Price: $3,270
Date First Installed: 1974

TIMEPLEX, INC.
MICROPLEXER X.25 PAD
Multiplexer Class: Statistical
Multiplexer Class: Packet Assembler/Disassembler
Input Interface: RS-232C, RS-422, CCITT V.24/V.28
Maximum Input Channels:
Synchronous: 48
Transmission Mode: Half-Duplex, Full-Duplex
Input Transmission Rates: Asynchronous - Up tp 9,600 bps Asynchronous/Synchronous - 600 bps, 3,600 bps
Aggregate Transmission Rate: 4,608 bps
Maximum Output Lines:
Asynchronous: 2
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates: Synchronous - 9,600 bps, 14,400 bps
Communications Protocols: HDLC
Features: Automatic Speed Detection (Autobaud), Protocol Conversion, Automatic Repeat Request, Operational and Statistical Reports, Flow Control, Programmable, Network Monitor
Diagnostic Features: Remote, Local
Distribution Method: End user
Price: $1,750
Date First Installed: 1983

USDATA, INC.
FEX-1 INTELLIGENT DATA MULTIPLEXER
Multiplexer Class: Network Concentrator
Input Interface: RS-232C, RS-422
Maximum Input Channels:
Synchronous: 14
Input Transmission Rates: Asynchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps, 19,200 bps
Communications Protocols: Ascii
Diagnostic Features: Remote, Local
Price: $3,500
(See Vendor Profile Page V-32)

WANG LABORATORIES, INC.
CMUX-2370 CABLE MULTIPLEXOR
Multiplexer Class: TDM
Input Interface: IBM Type "A" Coaxial
Maximum Input Channels:
Asynchronous: 32
Transmission Mode: Half-Duplex
Input Transmission Rates: Asynchronous/Synchronous - 23,500 bps
Aggregate Transmission Rate: 23,500 bps
Maximum Output Lines:
Asynchronous: 1
Output Transmission Mode: Half-Duplex
Output Line Transmission Rates: Asynchronous/Synchronous - 23,500 bps
Communications Protocols: SDLC
Diagnostic Features: Remote, Local
Distribution Method: End user
Price: $3,375
Date First Installed: November 1983
Number Installed to Date: Under 100
(See Vendor Profile Page V-32)

WESTERN DATACOM
PRISM 1003
Multiplexer Class: Statistical
Input Interface: RS-232C, 20 mA Current Loop
Maximum Input Channels:
Synchronous: 3
Transmission Mode: Full-Duplex
Input Transmission Rates: Asynchronous - 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps
Aggregate Transmission Rate: 96 bps
Maximum Output Lines:
Synchronous: 1
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates: Asynchronous - 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps
Communications Protocols: High Protocol Streaming
Features: Data Compression, Automatic Repeat Request, Flyback Buffering Delay, Port Contention, Flow Control, Automatic Speed Detection, Autodial Throughput
Diagnostic Features: Remote, Local
Distribution Method: Third-party
Price: $675
Date First Installed: August 1982
Number Installed to Date: 150
(See Vendor Profile Page V-33)

XYPLEX, INC.
XYPLEX SYSTEM
Multiplexer Class: Statistical
Input Interface: RS-232C
Transmission Mode: Full-Duplex
Input Transmission Rates: Asynchronous - 9,600 bps
Maximum Output Lines:
Synchronous: 1
Output Transmission Mode: Full-Duplex
Output Line Transmission Rates: Asynchronous/Synchronous - 1M bps
Features: Automatic Speed Detection, Downline Loading, Automatic Repeat Request, Flyback Buffering Delay, Port Contention, Switching, Flow Control, Programmable, Network Monitor
Diagnostic Features: Remote, Local
Distribution Method: End user
Price: $700
Date First Installed: October 1982
Number Installed to Date: Under 100
(See Vendor Profile Page V-33)

The CPT Solution that talks with mainframes in an important new way:

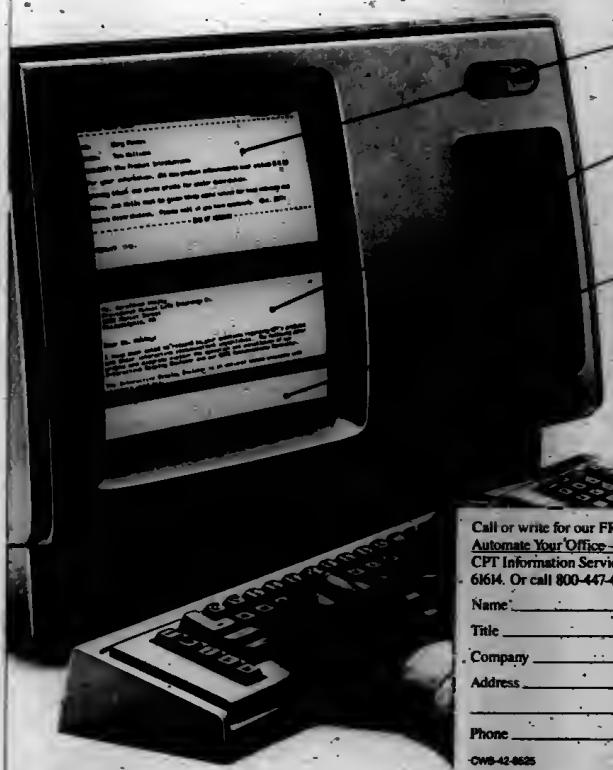
CPT solves the costly, cumbersome problem of separate data terminals and word processors at individual workstations.

An exclusive software breakthrough enables one CPT system to perform both functions. On the same screen. At the same time. We call it the CPT Interactive Display Emulator (IDE).

With this new CPT solution, an operator can transfer data processing information from a host computer (top window) directly to a word processing document-in-progress (middle window). Or vice versa. With just two keystrokes.

In addition, an optional CPT SNA communications controller can link up to 7 CPT systems together as part of an IBM 3270 network.

A few toll-free keystrokes on your telephone will bring you more information. And open some important new windows on the future.



Interactive Communications Window
A full 24-line by 80-column screen that displays information direct from a host computer.

Independent CPT Word Processing Window
A half-page display of the same CPT word processing that's earned a place on the Datapro Honor Roll for the last three years.

Word Processing Preview
Another standard CPT word processing feature. It lets you preview other pages in a document, or scan an entirely different document, without interrupting work in progress.

Call or write for our FREE 28-page booklet, How to Automate Your Office – One Step at a Time™ Mail to CPT Information Service, P.O. Box 3900, Peoria, Illinois 61614. Or call 800-447-4700.

Name _____

Title _____

Company _____

Address _____

_____

Phone _____

OWB-42-8625

Office automation you can't outgrow

CPT.

Specifications are subject to change at the discretion of CPT Corporation

New CPT Solutions that work together.

The CPT SRS45 won't shut down your whole office if the central electronics module goes down. And you won't lose information if a workstation is accidentally unplugged.

For larger offices, the new CPT Office Disk-g-ette system (not shown) supports from 8 to 128 workstations, depending on the application. It provides additional speed and capabilities, and can tie into existing IBM host computer systems with all their workstations.

Before you buy, find out why other multi-workstation systems can't promise many of these features. And why CPT can.

Specifications are subject to change at the discretion of CPT Corporation.

Call or write for our FREE 28-page booklet, How to Automate Your Office ÷ One Step at a Time!™ Mail to CPT Information Service, P.O. Box 3900, Peoria, Illinois 61614. Or call 800-447-4700.

Name _____

Title _____

Company _____

Address _____

_____

Phone _____

CWB-43-SRS45

CPT.

Office automation you can't outgrow.

Index to Converters/Emulators

Converters are devices (or software) that convert the transmission characteristics of one data stream to different transmission characteristics. Included in this category are interface, protocol, speed and code conversion products.

Emulators permit one computer system to execute programming written for another computer system.

The index to converters/emulators is arranged alphabetically by vendor and contains the unit price as well as the page number on which the complete listing can be found.

VENDOR	MODEL	PRICE	PAGE
Agile Corp.	MODEL 3651 TWINAX PROTOCOL CONVERTER	$2,495	B-4
	MODEL 5287 PROTOCOL CONVENTOR	$2,500	B-4
	MODEL 6287 PROTOCOL CONVERTER	$2,500	B-4
	PROGRAMMABLE COMMUNICATIONS INTERFACE LC-300	$2,995	B-4
	PROGRAMMABLE COMMUNICATIONS INTERFACE LC-36	$695	B-4
Air Land Systems Corp.	PRINTER INTERFACES MPC-SERIES	$1,200 to $1,850	B-4
	PROTOCOL CONVERTERS PCU-SERIES	$1,400 to $5,000	B-4
Alphamicrix, Inc.	BAE-800	$1,495	B-4
Amdahl Corp.	4440 NETWORK CONCENTRATOR	$6,700 to $14,000	B-4
	4450 NETWORK CONCENTRATOR	$10,700	B-4
	4470 NETWORK CONCENTRATOR	$12,500	B-4
Amnext	KACHINA 2	$4,000 to $25,000	B-4
Apex Technology	B-10	$1,150	B-4
	T-10	$3,500	B-4
AST Research, Inc.	AST-BSC	$995	B-4
	AST-PCOX	$1,195	B-4
	AST-SNA	$995	B-4
	AST-3780	$945	B-4
	AST-5251	$995	B-4
Atlantic Research Corp.	IFA-SERIES	$220 to $1,150	B-4
Avatar Technologies, Inc.	PA 1000	$995	B-4
A. W. Computer Systems, Inc.	A.W. P.C. TYPE 1	$2,000 to $2,200	B-4
	A.W. P.C.-TYPE 3	$7,000 to $8,000	B-4
Bastex Data Systems, Inc.	DIGILINK II	N/A	B-4
Betacom Corp.	PROFESSIONAL COMMUNICATION MANAGER-2000	$1,300 to $2,500	B-4
Black Box Catalog/Expander Inc.	AS/2S	$1,695	B-4
Cisi Corp.	IBM/UNIVAC COMPATABILITY CARD	$1,500	B-4
	RAINBOW 100 UNIVAC ADAPTER KIT	$2,000	B-4
Comsoton, Inc.	TERMINAL CONCENTRATOR; MD6-8070	$4,000 to $20,000	B-4
Computer Communications Specialists, Inc.	TASK 200	$450	B-4
Computer Peripheral Systems, Inc.	MARS	$1,100 to $4,200	B-4
Computer Systems	CS/88	$1,500 to $3,900	B-4
Com/Tech Systems, Inc.	A-302 RTS EMULATOR	$400	B-4
Connecticut Microcomputer, Inc.	BUSSTER GR	$495	B-4
	BUSSTER RG	$595	B-4
	SADI	$295	B-4
Control Concepts	PROTOCOL CONVERTER/CC-3274	$4,995 to $18,995	B-4
Data General Corp.	DG/RJE	N/A	B-4
	DG/3270	N/A	B-4
	RASP	N/A	B-4
	RCX70	N/A	B-4
	RJE80	N/A	B-4
Datagram Corp.	DM 1600 B	$6,000 to $30,000	B-4
Data Flex, Inc.	PCT PLUS	$3,100	B-4
Dataprobe, Inc.	DR-10	$750	B-4
Datastream Communication, Inc.	774	$4,000 to $10,000	B-4
	776	$4,000 to $6,000	B-4
	874	$16,000	B-4
	MPC	$8,000 to $12,000	B-4
Data Technologies Industries	MIDDLEMAN	$550	B-4
DCA/TAC	INA/ATC	$6,960 to $14,950	B-4
Digital Appointee Corp.	COMMUNICATION PRINTER INTERFACE 7141	$1,650	B-4
	RLPS 801000	$6,750	B-4
Diversified Data Resources, Inc.	HYDRA II	$6,900 to $9,900	B-10
Dynatech Data Systems	DYNA-TEST 1600	$6,000	B-10
	DYNA-TEST 2000 C	$13,000	B-10
Dynatech Packet Technology, Inc.	MULTI-PAD X.25	$2,695 to $3,400	B-10

Converter/Emulator Index

VENDOR	MODEL	PRICE	PAGE
Dynatech Packet Technology, Inc.	MULTI-PLEX X.25	$1,895 to $2,695	B-10
Edge Technology	MESSAGE HANDLER	$495 to $1,995	B-10
Fermscan, Inc.	FS-100 CODEM	$13,000	B-10
Gandalf Data, Inc.	IFC 200-SERIES	$400 to $850	B-10
	PIN 3270E-7	$7,900 to $13,000	B-10
Gateway Communications, Inc.	GATEWAY PROCESSOR	$1,580	B-10
Hawthorne Data Systems	COMMCENTER 2	$995	B-11
IBM Corp.	7426	N/A	B-11
Inet Corp.	VTS 352	$5,800 to $8,200	B-11
IDE Associates, Inc.	IDECOMM 3278/NPR-001 SPR-IN	$1,195	B-11
Innovation Microsystems, Inc.	IMI SERIES 570	$800 to $2,000	B-11
Innovative Electronics, Inc.	MC-80/100	$1,445 to $1,845	B-11
	MC-80/200	$1,445 to $1,845	B-11
	MC-80/300	$2,095 to $2,245	B-11
	MC-80/400	$2,095 to $2,245	B-11
	MC-80/600	$1,495 to $1,695	B-11
	MC-80/602	$1,850	B-11
InfoCom, Inc.	3270 IPC	$15,000	B-11
	X.25 IPC	$15,000	B-11
Integrated Design Engineering, Inc.	IDE-3011	$500	B-12
	IDE-3013	$500	B-12
	IDE-3014	$1,800	B-12
	IDE-3015	$450	B-12
	IDE-3016	$1,850	B-12
	IDE-3018	$1,850	B-12
Intelligent Business Systems, Inc.	CSX 1024	$80,000	B-12
	CSX-1024	$80,000	B-12
Inter-Link	2101/2501	$995 to $1,800	B-12
Interell Systems, Inc.	8276-1	$3,800	B-12
	8276-12	$3,500	B-12
Itek Composition Systems	MULTIDISK READER	$12,600 to $16,900	B-13
J B M Electronics	ASYNCHRONOUS PROTOCOL CONVERTERS	$995	B-12
Kaufman Research Manufacturing, Inc.	MODEL 870	$3,395 to $6,295	B-12
	MODEL 871	$3,395 to $6,295	B-13
	MODEL 872	$3,395 to $6,295	B-13
KMW Systems Corp.	2780/3780	$1,695	B-14
	3770	$4,550	B-14
	3777 SERIES II	$4,550	B-14
	HASP	$4,550	B-14
Local Data, Inc.	DATALYNX 3274	$6,000	B-14
	DATALYNX 3780	$1,750	B-14
	INTERLYNX 3278	$1,395	B-14
	INTERLYNX 3287	$1,750	B-14
Micom Systems, Inc.	MICRO800/X.25 CONCENTRATOR PAD	$2,050 to $4,600	B-14
	MICRO7400 PROTOCOL CONVERTER	$1,650 to $4,750	B-14
Microlog, Inc.	BABYTALK	$995	B-15
Midwest Data Source	APPLE II	$695 to $1,500	B-16
	APPLE III	$995 to $1,600	B-15
	IBM	$140 to $1,200	B-15
Modcomp Plus, Inc.	BRITE ONE	$1,280	B-16
	SMRTE ONE	$3,600	B-15
National Computer Systems, Inc.	PROTOCOL CONVERTER	$1,800	B-15
Nestar Systems, Inc.	3270 BSC	$3,000	B-15
	3270 SNA	$4,000	B-15
Northern Telecom, Inc.	PC	$4,200	B-16
	SL-1	N/A	B-15
Nu Data Corp.	720 PROTOCOL CONVERTER	$2,000	B-15
Peripheral Technology, Inc.	SCAT	$995	B-16
	SCAT 1	$795	B-15
	SCAT 2 2101	$995	B-16
	SCAT 2 2303	$2,995	B-16
	SCAT 2 2501	$2,695	B-16
Peripherics Corp.	T-COMM	N/A	B-16
Personal Microcomputers	MICRO-MET	$995	B-16
Phoenix Digital Corp.	DPAC-30	$8,000	B-16
Photo 1, Inc.	CLEO 3270	$3,995	B-16
	CLEO 3270 HF	$3,995	B-16
Progressive Systems, Inc.	CLC MODELS 2/4	$3,500 to $15,000	B-16
	CLC MODEL 5	$4,000 to $16,000	B-17
Protocol Computers, Inc.	71B/SNA	$3,100 to $7,000	B-17
	73SX	N/A	B-17
	74D	$5,200	B-17
	75B/SNA	$3,100 to $7,000	B-17
	1051 CONVERTER	$3,100 to $7,000	B-17
	1067 CONVERTER	$3,100 to $7,000	B-16
	1071 CONVERTER	$3,100 to $7,000	B-16
	1076 CONVERTER	$3,100 to $7,000	B-16
	1076X CONVERTER	$4,600 to $6,600	B-16

Converter/Emulator Index

VENDOR	MODEL	PRICE	PAGE
Protocol Computers, Inc.	3780/SNA	$3,100 to $7,000	B-19
	PCI SERIES	$1,850 to $8,500	B-19
	R73SX CONVERTER	$5,500	B-19
	VIDROTEX 67	$3,100 to $7,000	B-19
Questronics, Inc.	SQ1	N/A	B-19
	STI	$300 to $400	B-19
Rascal-Telesystems, Inc.	202 NETWORKING TRANSLATOR	$2,695	B-19
	404 CENTRAL SITE TRANSLATOR	$3,995	B-19
Radian Corp.	MP-III	$4,100 to $20,000	B-19
Ranak Corp.	TRANSLATOR-3270	$3,600 to $15,000	B-19
Sheffield Corp.	MEDIACOM	$5,500	B-19
Sherwood Digital Electronics	A/S-2, A/S-3	$1,495 to $2,495	B-19
	PQ4, PQ5	$1,495 to $2,495	B-19
Starnet Data Systems	STARNET II	$14,710	B-19
Stratus Computer, Inc.	STRATUS/32 CONTINUOUS PROCESSING SYSTEM	$140,000	B-19
Synaltic Systems	D C I C 2	$495	B-19
	STD SER 2	$495	B-19
Tandy Corp.	Y 70	$7,000	B-19
Techland Systems, Inc.	BLUE LINX 3275/6 BISYNCH	$890	B-19
	BLUE LINX 3276/SDLC	$890	B-19
	BLUE LINX 5251/12	$890	B-19
	VTERM	$160	B-20
Tektronix, Inc.	634	$175 to $3,990	B-20
Telebyte Technology, Inc.	80	$115	B-20
	64	$80	B-20
	65	$100	B-20
	78	$128	B-20
	SERIES 63	$99 to $126	B-20
Telefonc Corp.	TELEX PLUG	$1,395 to $1,670	B-20
Teleprocessing Products, Inc.	TP-200/201	$295 to $395	B-20
	TP-200M	$735	B-20
	TP-300	$450	B-20
	TP-350	$450	B-20
Telxon Corp.	M-871 ACCESS CONTROLLER	N/A	B-20
Thomas Engineering	MZ80	$5,000 to $12,000	B-21
TNW Corp.	TNW 232D	$369	B-21
	TNW 1000	$129	B-21
	TRW 2000	$229	B-21
Trendata Standard Memories Corp.	TCA/2	$5,000	B-21
Tri-Data	NETWAY COMMUNICATIONS PROCESSOR	$11,000	B-21
Via West, Inc.	CST 100	$150	B-21
	PSI 100	$200	B-21
	VST 2000	$195	B-21
Western Datacom	DATACOM 1000	$2,000	B-21
Xyquad, Inc.	X-100	$1,150	B-21

Converters/Emulators

AGILE CORP.
MODEL 3661 TWINAX PROTOCOL CONVERTER
Conversion Function: Protocol Conversion
Number of Ports Supported: 2
Transmission Mode: Full-Duplex
Standard Transmission Rate: Asynchronous - 300 bps, 600 bps, 1,200 bps, 1,200 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,800 bps, 9,600 bps, 19,200 bps
Protocol Conversion: IBM System/34, System/36 to RS-232C, IBM Series/1 to RS-232C
Features: Diagnostics, Polling
Price: $2,495
Distribution Method: End user
(See Vendor Profile Page V-1)

AGILE CORP.
MODEL 3267 PROTOCOL CONVERTER
Conversion Function: Protocol Conversion
Number of Ports Supported: 1
Transmission Mode: Full-Duplex
Standard Transmission Rate: Asynchronous - 1,200 bps, 2,400 bps, 4,800 bps, 9,600 bps, 19,200 bps
Protocol Conversion: IBM 3270 BSC to Ascii RS-232C, 3270 SNA/SDLC to Ascii RS-232C, Local 3270 DCA to Ascii RS-232C
Features: Diagnostics, Polling
Price: $2,500
Distribution Method: End user
Number Installed to Date: 500 - 1,000
Date First Installed: September 1981

AGILE CORP.
MODEL 3267 PROTOCOL CONVERTER
Conversion Function: Protocol Conversion
Number of Ports Supported: 1
Transmission Mode: Full-Duplex
Standard Transmission Rate: Asynchronous - 300 bps, 600 bps, 1,200 bps, 2,400 bps, 4,800 bps, 9,600 bps, 19,200 bps
Protocol Conversion: IBM 3270 BSC to Ascii RS-232C, 3270 SNA/SDLC to Ascii RS-232C, 3270 Local DCA to Ascii RS-232C
Features: Diagnostics, Polling
Price: $2,500
Distribution Method: End user

AGILE CORP.
PROGRAMMABLE COMMUNICATIONS INTERFACE LC-300
Conversion Function: Protocol Conversion
Number of Ports Supported: 3
Transmission Mode: Half-Duplex, Full-Duplex
Standard Transmission Rate: Synchronous - 50 bps, 75 bps, 110 bps, 1,800 bps, 3,600 bps, 7,200 bps, 9,600 bps; Asynchronous/Synchronous - 300 bps, 600 bps, 1,200 bps, 2,400 bps, 4,200 bps; Asynchronous - 19,200 bps
Protocol Conversion: HP MTS 3000 to RS-232C
Features: Polling
Price: $2,995
Distribution Method: End user
Number Installed to Date: 500 - 1,000
Date First Installed: March 1981

AGILE CORP.
PROGRAMMABLE COMMUNICATION INTERFACE MODEL LC-96
Conversion Function: Protocol Conversion
Number of Ports Supported: 1
Transmission Mode: Half-Duplex, Full-Duplex
Standard Transmission Rate: Asynchronous - 9,600 bps, 19,800 bps
Protocol Conversion: Burroughs Poll Select to Asynchronous Ascii
Features: Diagnostics, Polling
Price: $995
Distribution Method: End user
Number Installed to Date: 500 - 1,000
Date First Installed: November 1977

AIR LAND SYSTEMS CORP.
PRINTER INTERFACES MPC-SERIES
Conversion Function: Interface Conversion, Code Conversion, Protocol Conversion, Speed Conversion, Emulator
Number of Ports Supported: 1
Transmission Mode: Half-Duplex, Full-Duplex
Standard Transmission Rate: Asynchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, Asynchronous/Synchronous - 1,200 bps, 1,200 bps, 2,400 bps, 3,600 bps, 4,200 bps, 7,800 bps, 9,600 bps, 19,800 bps
Code Conversion: Ebcdic to Ascii, Baudot to Ascii, XS 3 to Ascii
Interface Conversion: Serial RS-232 to Parallel Centronics
Mode Conversion: Half-Duplex to Full-Duplex, Full-Duplex to Half-Duplex
Protocol Conversion: IBM BSC 2780 to Ascii Unblocked, Honeywell VIP to Ascii Unblocked, Sperry U100 to Ascii Unblocked
Features: Data Compression, Diagnostics, Polling, Autosenseer
Price: $1,200 to $1,850
Distribution Method: End user, OEM, Third-party
Number Installed to Date: 5,000 - 10,000
Date First Installed: 1972
(See Vendor Profile Page V-1)

AIR LAND SYSTEMS CORP.
PROTOCOL CONVERTERS PCU-SERIES
Conversion Function: Interface Conversion, Code Conversion, Protocol Conversion, Speed Conversion, Emulator
Number of Ports Supported: 16
Transmission Mode: Half-Duplex, Full-Duplex
Standard Transmission Rate: Asynchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps; Asynchronous/Synchronous - 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,800 bps, 9,600 bps, 19,200 bps
Code Conversion: Ebcdic to Ascii, XS 3 to Ascii, Baudot to Ascii
Interface Conversion: Serial RS-232 to Serial RS-232
Mode Conversion: Half-Duplex to Full-Duplex, Full-Duplex to Half-Duplex
Protocol Conversion: IBM PC 2780 to Ascii Asynchronous, Honeywell GRTS to Ascii Asynchronous, Sperry U100 to Ascii Asynchronous
Features: Concentration, Data Compression, Diagnostics, Polling, Autosenseer
Price: $1,400 to $5,000
Distribution Method: End user, OEM, Third-party
Number Installed to Date: 5,000 - 10,000
Date First Installed: 1972

ALPHAMATRIX, INC.
BAE-000
Conversion Function: Interface Conversion, Code Conversion, Protocol Conversion, Speed Conversion
Transmission Mode: Half-Duplex, Full-Duplex
Standard Transmission Rate: Asynchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps, 15,600 bps
Code Conversion: Ascii to Ebcdic, Baudot to Ascii, Ebcdic to Ascii
Interface Conversion: RS-232C to 20 mA Current Loop, RS-232C to 60 mA Current Loop
Mode Conversion: Half-Duplex to Full-Duplex, Full-Duplex to Half-Duplex
Protocol Conversion: BSC to Ascii, AXDX to Ascii, BLC to Ascii
Features: Concentration, Data Compression, Diagnostics, Polling, Autosenseer
Price: $1,495
Monthly Maintenance Fee: $25
Distribution Method: End user
Number Installed to Date: Under 100
Date First Installed: 1978
(See Vendor Profile Page V-1)

AMBANI, CORP.
4440 NETWORK CONCENTRATOR
Conversion Function: Protocol Conversion
Number of Ports Supported: 40
Transmission Mode: Full-Duplex
Standard Transmission Rate: Asynchronous - 110 bps, 300 bps, 600 bps, Asynchronous/Synchronous - 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 7,200 bps, 9,600 bps, 19,200 bps
Protocol Conversion: Asynchronous to X.25, X.25 to Asynchronous
Features: Concentration, Diagnostics, Automatic Data Rate Detection, Automatic Parity Recognition, Autosenseer
Price: $6,700 to $14,000
Monthly Maintenance Fee: $80
Distribution Method: End user
Number Installed to Date: Under 100
Date First Installed: December 1982
(See Vendor Profile Page V-2)

AMBANI, CORP.
4480 NETWORK CONCENTRATOR
Conversion Function: Protocol Conversion
Number of Ports Supported: 8
Transmission Mode: Full-Duplex
Standard Transmission Rate: Synchronous - 1,800 bps, 1,800 bps, 2,400 bps, 4,800 bps, 7,800 bps, 9,600 bps, 19,200 bps
Code Conversion: Ascii to Ebcdic, Ebcdic to Ascii
Protocol Conversion: Bisynchronous 3270 to X.25, X.25 to Bisynchronous 3270
Features: Concentration, Diagnostics, Polling
Price: $10,700
Monthly Maintenance Fee: $70
Distribution Method: End user
Number Installed to Date: Under 100
Date First Installed: January 1983

AMBANI, CORP.
4470 NETWORK CONCENTRATOR
Conversion Function: Protocol Conversion
Number of Ports Supported: 8
Transmission Mode: Full-Duplex
Standard Transmission Rate: Synchronous - 1,800 bps, 1,800 bps, 2,400 bps, 3,800 bps, 4,200 bps, 7,200 bps, 9,600 bps
Protocol Conversion: SDLC/SNA 3270 to X.25, X.25 to SDLC/SNA 3270
Features: Concentration, Diagnostics, Polling
Price: $12,500
Distribution Method: End user
Number Installed to Date: Under 100
Date First Installed: February 1984

AMASAZI
KACHINA 2
Conversion Function: Interface Conversion, Code Conversion, Protocol Conversion, Speed Conversion, Emulator
Number of Ports Supported: 9
Transmission Mode: Half-Duplex, Full-Duplex
Standard Transmission Rate: Synchronous - 300 bps, 600 bps, 1,200 bps, 1,200 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps, 19,800 bps, 56,000 bps
Code Conversion: Ascii to Ebcdic
Interface Conversion: RS-232C to CCITT V.27
Mode Conversion: Half-Duplex to Full-Duplex, Full-Duplex to Half-Duplex
Protocol Conversion: BLC to HDLC
Features: Concentration, Data Compression, Diagnostics, Polling,

Automatic Data Rate Detection, Automatic Parity Recognition, Autoanswer, Integrated Modem
Price: $4,000 to $25,000
Distribution Method: End user
Number Installed to Date: 600 - 1,000
Date First Installed: 1981
(See Vendor Profile Page V-2)

APEX TECHNOLOGY
S-10
Conversion Function: Interface Conversion, Code Conversion, Protocol Conversion, Speed Conversion, Emulator
Number of Ports Supported: 1
Transmission Mode: Full-Duplex
Standard Transmission Rate: Asynchronous/Synchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps, 19,200 bps
Code Conversion: Burroughs to RS-232C
Interface Conversion: Burroughs to RS-232C
Protocol Conversion: Burroughs to RS-232C
Features: Data Compression, Diagnostics
Price: $1,150
Distribution Method: Third-party
Number Installed to Date: Under 100
Date First Installed: 1982
(See Vendor Profile Page V-2)

APEX TECHNOLOGY
T-10
Conversion Function: Interface Conversion, Code Conversion, Protocol Conversion, Speed Conversion, Emulator
Number of Ports Supported: 1
Transmission Mode: Full-Duplex
Standard Transmission Rate: Asynchronous/Synchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps, 19,200 bps
Code Conversion: Data Products Parallel to Synchronous RS-232C
Interface Conversion: Data Products Parallel to Synchronous RS-232C
Protocol Conversion: Data Products Parallel to Synchronous RS-232C
Features: Data Compression, Diagnostics
Price: $3,500
Distribution Method: Third-party
Number Installed to Date: Under 100
Date First Installed: September 1982

AST RESEARCH, INC.
AST-BSC
Conversion Function: Emulator
Transmission Mode: Half-Duplex
Price: $695
Distribution Method: OEM
Number Installed to Date: Under 100
Date First Installed: 1983
(See Vendor Profile Page V-3)

AST RESEARCH, INC.
AST-PCOX
Conversion Function: Emulator
Number of Ports Supported: 1
Standard Transmission Rate: 2.35M bps
Price: $1,190
Distribution Method: OEM
Number Installed to Date: Under 100
Date First Installed: 1983

AST RESEARCH, INC.
AST-SNA
Conversion Function: Emulator
Transmission Mode: Half-Duplex
Price: $695
Distribution Method: OEM
Number Installed to Date: Under 100
Date First Installed: 1983

AST RESEARCH, INC.
AST-3780
Conversion Function: Emulator
Transmission Mode: Half-Duplex
Standard Transmission Rate: Synchronous - 19,200 bps
Price: $945
Distribution Method: OEM
Number Installed to Date: Under 100
Date First Installed: 1983

AST RESEARCH, INC.
AST-6251
Conversion Function: Emulator
Transmission Mode: Half-Duplex
Standard Transmission Rate: Synchronous - 9,600 bps
Price: $695
Distribution Method: OEM
Number Installed to Date: Under 100
Date First Installed: 1983

ATLANTIC RESEARCH CORP. IFA-SERIES
Conversion Function: Interface Conversion
Transmission Mode: Half-Duplex, Full-Duplex
Standard Transmission Rate: All
Interface Conversion: RS-232 to V.35, RS-232 to RS-422, RS-232 to X.21, V.10, V.11
Mode Conversion: Half-Duplex to Full-Duplex, Full-Duplex to Half-Duplex
Price: $220 to $1,150
Distribution Method: End user
Number Installed to Date: 100 - 500
Date First Installed: February 1981
(See Vendor Profile Page V-3)

AVATAR TECHNOLOGIES, INC.
PA 1000
Conversion Function: Interface Conversion, Code Conversion, Protocol Conversion, Speed Conversion, Emulator, PC to 3278, VT-100
Number of Ports Supported: 2
Transmission Mode: Full-Duplex
Standard Transmission Rate: Asynchronous - 300 bps, 9,600 bps, 2.3M bps
Code Conversion: Asynchronous Ascii to IBM 3278/2
Interface Conversion: RS-232 to Coaxial
Mode Conversion: Full-Duplex to Half-Duplex
Protocol Conversion: Asynchronous Ascii to IBM Coaxial
Features: Diagnostics, Polling, Automatic Data Rate Detection, Automatic Parity Recognition, Autoanswer, Protocol Conversion
Price: $995
Distribution Method: Third-party
Number Installed to Date: 500 - 1,000
Date First Installed: 1983
(See Vendor Profile Page V-3)

A. W. COMPUTER SYSTEMS, INC.
A.W. P.C. TYPE 1
Conversion Function: Protocol Conversion
Number of Ports Supported: 2
Standard Transmission Rate: Asynchronous - 600 bps, 1,200 bps, Synchronous - 4,800 bps
Code Conversion: IBM Ebcdic BSC to NCR Ascii BSC, NCR Ascii BSC to Ascii Asynchronous, IBM Ebcdic BSC to Ascii Synchronous
Features: Diagnostics, Polling
Price: $2,000 to $2,200
Distribution Method: End user
Number Installed to Date: Under 100
Date First Installed: July 1983
(See Vendor Profile Page V-3)

A. W. COMPUTER SYSTEMS, INC.
A.W. P.C. TYPE 3
Conversion Function: Protocol Conversion
Number of Ports Supported: 2
Standard Transmission Rate: Asynchronous - 110 bps, 300 bps, 600 bps, 1,200 bps, 2,400 bps, Synchronous - 9,600 bps, 9,800 bps
Code Conversion: IBM Ebcdic BSC to NCR Ascii BSC, NCR Ascii BSC to Ascii Asynchronous, IBM Ebcdic BSC to Ascii Synchronous
Features: Diagnostics, Polling
Price: $7,000 to $8,000
Distribution Method: End user
Number Installed to Date: Under 100
Date First Installed: July 1983

BACKUS DATA SYSTEMS, INC.
DIGILINK 9
Conversion Function: Code Conversion, Speed Conversion
Number of Ports Supported: 9
Transmission Mode: Full-Duplex
Standard Transmission Rate: Asynchronous/Synchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps, 19,200 bps
Code Conversion: Ascii to Binary, Binary to Ascii
Distribution Method: End user
Number Installed to Date: Under 100
(See Vendor Profile Page V-3)

BETACOM CORP.
PROFESSIONAL COMMUNICATION MANAGER-3000
Conversion Function: Protocol Conversion, Emulator
Number of Ports Supported: 1
Transmission Mode: Half-Duplex, Full-Duplex
Standard Transmission Rate: Synchronous - 110 bps; Asynchronous/Synchronous - 300 bps, 1,200 bps
Code Conversion: Ebcdic to Ascii, Baudot to Ascii
Interface Conversion: IBM PC to Televideo 910, Televideo 800/802 to TTY, IBM Compatible to TTY
Features: Diagnostics, Polling, Autoanswer, Autodial, Sign-on
Price: $1,800 to $2,500
Monthly Maintenance Fee: $13
Distribution Method: End user
Number Installed to Date: Under 100
(See Vendor Profile Page V-4)

BLACK BOX CATALOG/EXPANDER, INC.
AS/36
Conversion Function: Protocol Conversion
Number of Ports Supported: 1
Transmission Mode: Half-Duplex On Bisynchronous
Standard Transmission Rate: Asynchronous/Synchronous - 9,600 bps
Code Conversion: Ebcdic to Ascii
Mode Conversion: Bisynchronous to Asynchronous
Protocol Conversion: 2780 to Ascii to 3741 to Ascii, 3780 to Ascii to Transparent Asynchronous, 2770 to Ascii
Features: Built-in Modem Emulator
Price: $1,695
Distribution Method: End user
Number Installed to Date: 600 - 1,000
Date First Installed: January 1982
(See Vendor Profile Page V-4)

CXR CORP.
IBM/SPERRY COMPATABILITY CARD
Conversion Function: Emulator
Number of Ports Supported: 1
Standard Transmission Rate: Synchronous - 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps, 19,200 bps
Features: Data Compression, Diagnostics, Polling, Automatic Parity Recognition
Price: $1,500
Distribution Method: Third-party
Number Installed to Date: Under 100
Date First Installed: March 1982
(See Vendor Profile Page V-5)

CXR CORP.
RAINBOW 100 SPERRY ADAPTER KIT
Conversion Function: Emulator
Number of Ports Supported: 1
Standard Transmission Rate: Synchronous - 110 bps, 300 bps,

Converters/Emulators

600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps, 19,200 bps
Features: Data Compression, Diagnostics, Polling, Automatic Parity Recognition, UTS Emulation
Price: $2,000
Distribution Method: Third-party
Number Installed to Date: Under 100
Date First Installed: March 1982

COMMTEX, INC.
TERMINAL CONCENTRATOR; MDS-8070
Conversion Function: Interface Conversion, Code Conversion, Protocol Conversion, Speed Conversion, Emulator
Number of Ports Supported: 25
Transmission Mode: Half-Duplex, Full-Duplex
Standard Transmission Rate: Asynchronous - 110 bps, 600 bps, 900 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps, 19,200 bps
Code Conversion: Ascii to Ebcdic, Ebcdic to Ascii
Interface Conversion: RS-422A to RS-232C, 20 mA Current Loop to RS-232C, MIL 188C to RS-232C
Mode Conversion: Half-Duplex to Full-Duplex, Full-Duplex to Half-Duplex
Protocol Conversion: 3270 SNA/SDLC to Ascii Asynchronous, IBM 3270 BSC to Ascii Asynchronous
Features: Concentration, Data Compression, Diagnostics, Polling, Automatic Data Rate Detection, Automatic Parity Recognition, Autoanswer, Switching
Price: $4,000 to $20,000
Distribution Method: Third-party
Number Installed to Date: 600 - 1,000
Date First Installed: February 1981
(See Vendor Profile Page V-6)

COMPUTER COMMUNICATIONS SPECIALISTS, INC.
TASK 200
Number of Ports Supported: 2
Transmission Mode: Half-Duplex
Standard Transmission Rate: Asynchronous - 9,600 bps
Code Conversion: Component Driven
Interface Conversion: Component Driven
Protocol Conversion: Component Driven
Features: Diagnostics, Automatic Parity Recognition
Price: $450
Monthly Maintenance Fee: $6
Distribution Method: End user
Number Installed to Date: Under 100
Date First Installed: April 1983
(See Vendor Profile Page V-6)

COMPUTER PERIPHERAL SYSTEMS, INC.
IMARS
Conversion Function: Code Conversion, Speed Conversion
Number of Ports Supported: 7
Transmission Mode: Half-Duplex
Standard Transmission Rate: Asynchronous/Synchronous - 50 bps, 75 bps, 110 bps, 600 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps, 19,200 bps
Code Conversion: Poll/Select to TTY
Interface Conversion: RS-232C to RS-232C, RS-232C to TDI, RS-232C to Parallel
Mode Conversion: Half-Duplex to Half-Duplex
Protocol Conversion: Poll/Select to TTY
Features: Concentration, Data Compression, Diagnostics, Polling
Price: $1,100 to $4,200
Monthly Maintenance Fee: $19
Distribution Method: End user
Number Installed to Date: Under 100
Date First Installed: January 1982
(See Vendor Profile Page V-7)

COMPUTER SYSTEMS
CS/86
Conversion Function: Interface Conversion, Code Conversion, Protocol Conversion, Speed Conversion, Data Buffer/Converter
Number of Ports Supported: 9
Transmission Mode: Half-Duplex, Full-Duplex
Standard Transmission Rate: Asynchronous - 110 bps, 300 bps, 1,200 bps, 1,800 bps; Asynchronous/Synchronous - 2,400 bps, 4,800 bps, 9,600 bps, 19,200 bps
Code Conversion: Ascii to Ebcdic, Binary to Ebcdic
Interface Conversion: RS-232 to RS-422, RS-232 to Current Loop, EIA to TTY Parallel
Mode Conversion: Half-Duplex to Full-Duplex, Full-Duplex to Half-Duplex
Protocol Conversion: TTY Asynchronous to Bysynchronous, SDLC to TTY
Features: Concentration, Data Compression, Diagnostics, Automatic Data Rate Detection
Price: $1,500 to $3,600
Distribution Method: End user
Number Installed to Date: Under 100
Date First Installed: 1982
(See Vendor Profile Page V-7)

COM/TECH SYSTEMS, INC.
A-202 RTS EMULATOR
Conversion Function: Asynchronous to Synchronous Conversion
Number of Ports Supported: 1
Transmission Mode: Half-Duplex, Full-Duplex
Standard Transmission Rate: Asynchronous - 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps
Mode Conversion: Full-Duplex to Half-Duplex, Asynchronous to Synchronous
Features: Automatic Data Rate Detection, Automatic Modem Handshaking
Price: $400
Distribution Method: End user
Number Installed to Date: 100 - 500
Date First Installed: 1978
(See Vendor Profile Page V-5)

CONNECTICUT MICROCOMPUTER, INC.
BUSSTER GR
Conversion Function: Interface Conversion
Number of Ports Supported: 2
Transmission Mode: Full-Duplex
Standard Transmission Rate: Asynchronous - 75 bps, 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps
Interface Conversion: IEEE-488 to RS-232
Features: Polling, Automatic Parity Recognition
Price: $495
Distribution Method: End user
(See Vendor Profile Page V-7)

CONNECTICUT MICROCOMPUTER, INC.
BUSSTER RG
Conversion Function: Interface Conversion
Number of Ports Supported: 2
Transmission Mode: Full-Duplex
Standard Transmission Rate: Asynchronous - 75 bps, 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps
Interface Conversion: RS-232 to IEEE-488
Features: Polling, Automatic Parity Recognition
Price: $595

CONNECTICUT MICROCOMPUTER, INC.
SADI
Conversion Function: Code Conversion
Number of Ports Supported: 2
Transmission Mode: Full-Duplex
Standard Transmission Rate: Asynchronous - 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps
Code Conversion: PET Ascii to True Ascii
Interface Conversion: RS-232 to IEEE
Features: Automatic Parity Recognition
Price: $295
Distribution Method: End user

CONTROL CONCEPTS
PROTOCOL CONVERTER/CC-3274
Conversion Function: Protocol Conversion
Number of Ports Supported: 32
Transmission Mode: Both Half- and Full-Duplex
Standard Transmission Rate: Asynchronous/Synchronous - 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps
Protocol Conversion: Asynchronous to Bisynchronous, Asynchronous to SNA/SDLC
Features: Concentration, Polling, Automatic Data Rate Detection, Automatic Parity Recognition, Autoanswer, Graphics Passthrough
Price: $4,995 to $19,995
Monthly Maintenance Fee: $87
Distribution Method: End user
Number Installed to Date: 100 - 500
Date First Installed: June 1982
(See Vendor Profile Page V-7)

DATA GENERAL CORP.
DG/RJE
Conversion Function: Emulator
Number of Ports Supported: 4
Transmission Mode: Half-Duplex, Full-Duplex
Standard Transmission Rate: Synchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps, 19,200 bps
Features: Data Compression, Polling, Autoanswer
Number Installed to Date: Under 100
(See Vendor Profile Page V-9)

DATA GENERAL CORP.
DG/3270
Conversion Function: Emulator, SNA/3270 Terminals and Ports
Number of Ports Supported: 4
Transmission Mode: Half-Duplex, Full-Duplex
Standard Transmission Rate: Synchronous - 50 bps, 75 bps, 110 bps, 600 bps, 600 bps, 1,800 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps, 19,200 bps
Features: Polling
Distribution Method: End user
Number Installed to Date: Under 100

DATA GENERAL CORP.
HASP
Conversion Function: Emulator
Number of Ports Supported: 16
Transmission Mode: Half-Duplex, Full-Duplex
Standard Transmission Rate: Synchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps, 19,200 bps
Distribution Method: End user
Number Installed to Date: Under 100

DATA GENERAL CORP.
RCX70
Conversion Function: Emulator
Number of Ports Supported: 1
Transmission Mode: Half-Duplex, Full-Duplex
Standard Transmission Rate: Synchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps, 19,200 bps

No one makes the PC connection simpler.

If you're looking for an easy, flexible cost-effective way to make the personal computer to mainframe connection, look no further.

ICOT's Virtual Terminal System™ provides you with a convenient and flexible way to connect personal computers to your IBM or IBM-compatible mainframe. It does so by performing line concentration, cluster control and terminal emulation simultaneously. You'll be able to connect a multitude of personal computers into a single front-end port, conserving your mainframe resources. And you won't have to make any hardware modifications to either the personal computers themselves or to your network controllers.

Put ICOT's VTS protocol converter in your existing 3270 network and virtually any personal computer will be compatible with your BISYNC or SNA/SDLC applications software. ICOT's PC connection also gives you the flexibility of dial-up and leased line communications, plus access security.

ICOT Delivers a Turnkey Solution.
And ICOT won't leave you with a stack of black boxes and a screwdriver. We deliver a turnkey solution, installing every VTS ourselves. Then we back each installation with on-site training and a nationwide field service organization that delivers full engineering and maintenance support.

Whatever your current network configuration and protocols, ICOT's Virtual Terminal System can help you make the PC connection. Pure and simple.

For more information about the ICOT Virtual Terminal System call or write:

ICOT ... the data communications company

ICOT Corporation, 830 Maude Avenue, P.O. Box 7248, Mountain View, CA 94039, (415) 964-4635 TWX 910-379-6479

Converters/Emulators

Features: Polling
Distribution Method: End user
Number Installed to Date: Under 100

DATA GENERAL CORP.
RJE80
Conversion Function: Emulator
Number of Ports Supported: 19
Transmission Mode: Half-Duplex, Full-Duplex
Standard Transmission Rate: Synchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps, 19,200 bps
Features: Polling
Distribution Method: End user

DATABRAM CORP.
DBI 1000 B
Conversion Function: Interface Conversion, Code Conversion, Protocol Conversion, Speed Conversion
Number of Ports Supported: 19
Transmission Mode: Half-Duplex, Full-Duplex
Standard Transmission Rate: Asynchronous/Synchronous - 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps
Code Conversion: Burroughs Poll Select to Ascii, Ascii to Burroughs Poll Select
Interface Conversion: RS-232C to TDI, RS-232C to 20 mA, 20 mA to TDI
Mode Conversion: Half-Duplex to Full-Duplex, Full-Duplex to Half-Duplex
Protocol Conversion: Asynchronous - to Burroughs Poll Select
Features: Concentration, Diagnostics, Polling, Automatic Data Rate Detection, Autorenewer
Price: $6,000 to $30,000
Distribution Method: End user
Number Installed to Date: 100 - 600
Date First Installed: February 1979
(See Vendor Profile Page V-9)

DATA PLUS, INC.
PCT PLUS
Conversion Function: Code Conversion, Protocol Conversion, Speed Conversion
Number of Ports Supported: 5
Transmission Mode: Half-Duplex, Full-Duplex
Standard Transmission Rate: Asynchronous/Synchronous - 9,600 bps
Code Conversion: Baudot to Ascii, Ascii to Baudot, Ebcdic to Ascii
Mode Conversion: Half-Duplex to Full-Duplex, Full-Duplex to Half-Duplex
Protocol Conversion: SDLC to BDLC, HDLC to BLC, BLC to HDLC
Features: Concentration, Diagnostics, Polling, Automatic Parity Recognition, Autorenewer
Price: $3,100
Distribution Method: End user
Number Installed to Date: Under 100
Date First Installed: January 1983
(See Vendor Profile Page V-9)

DATAPROBE, INC.
DR-10
Conversion Function: Protocol Conversion, Speed Conversion
Transmission Mode: Half-Duplex, Full-Duplex
Standard Transmission Rate: Asynchronous/Synchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps, 19,200 bps
Code Conversion: Ascii to Baudot, Ebcdic to Ascii, Ebcdic to Baudot
Interface Conversion: Current Loop to EIA, Current Loop to RS-422, Current Loop to RS-423
Mode Conversion: Half-Duplex to Full-Duplex, Full-Duplex to Half-Duplex
Features: Concentration, Diagnostics, Polling, Automatic Data Rate Detection, Automatic Parity Recognition, Made to Specific Needs
Price: $750
Distribution Method: End user
Number Installed to Date: Under 100
Date First Installed: 1982
(See Vendor Profile Page V-9)

DATASTREAM COMMUNICATION, INC.
774
Conversion Function: Code Conversion
Number of Ports Supported: 24
Transmission Mode: Full-Duplex
Standard Transmission Rate: Asynchronous/Synchronous - 110 bps, 300 bps, 600 bps, 1,200 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps
Code Conversion: Ascii to Ebcdic, Ebcdic to Ascii
Interface Conversion: RS-232 to RG-59
Features: Data Compression, Diagnostics, Automatic Data Rate Detection, Automatic Parity Recognition
Price: $4,000 to $10,000
Monthly Maintenance Fee: $40
Distribution Method: End user
Number Installed to Date: Under 100
Date First Installed: 1980
(See Vendor Profile Page V-9)

DATASTREAM COMMUNICATION, INC.
776
Conversion Function: Code Conversion
Number of Ports Supported: 9
Transmission Mode: Full-Duplex
Standard Transmission Rate: Asynchronous/Synchronous - 110 bps, 300 bps, 600 bps, 1,200 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps
Code Conversion: Ascii to Ebcdic, Ebcdic to Ascii
Interface Conversion: RS-232 to RG-59
Features: Data Compression, Diagnostics, Automatic Data Rate Detection, Automatic Parity Recognition
Price: $4,000 to $6,000
Monthly Maintenance Fee: $40
Distribution Method: End user
Number Installed to Date: Under 100
Date First Installed: 1980

DATASTREAM COMMUNICATION, INC.
874
Conversion Function: Code Conversion
Number of Ports Supported: 19
Transmission Mode: Full-Duplex
Standard Transmission Rate: Asynchronous/Synchronous - 110 bps, 300 bps, 600 bps, 1,200 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps
Code Conversion: Ebcdic to Ascii, Ascii to Ebcdic
Interface Conversion: RS-232 to RG-59
Features: Data Compression, Diagnostics, Automatic Data Rate Detection, Automatic Parity Recognition
Price: $16,000
Monthly Maintenance Fee: $55
Distribution Method: End user
Number Installed to Date: Under 100
Date First Installed: 1981

DATASTREAM COMMUNICATION, INC.
MPC
Conversion Function: Code Conversion
Number of Ports Supported: 24
Standard Transmission Rate: Asynchronous/Synchronous - 110 bps, 300 bps, 600 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps
Code Conversion: Ascii to Ebcdic, Ebcdic to Ascii
Interface Conversion: RS-232
Features: Data Compression, Diagnostics, Automatic Data Rate Detection, Automatic Parity Recognition
Price: $6,000 to $12,000
Monthly Maintenance Fee: $150
Distribution Method: End user
Number Installed to Date: Under 100
Date First Installed: January 1984

DATA TECHNOLOGY INDUSTRIES
MIDDLEMAN
Conversion Function: Code Conversion, Emulator
Number of Ports Supported: 1
Transmission Mode: Half-Duplex, Full-Duplex
Standard Transmission Rate: Asynchronous - 150 bps, 300 bps, 600 bps, 1,800 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 9,600 bps
Code Conversion: Ascii to 12-13 Bit Parallel
Features: Memory Test Initialization
Price: $550
Distribution Method: Third-party
Number Installed to Date: 100 - 600
Date First Installed: 1980
(See Vendor Profile Page V-9)

DCA/TAC
INA/ATC
Conversion Function: Code Conversion, Protocol Conversion
Number of Ports Supported: 24
Transmission Mode: Half-Duplex, Full-Duplex
Standard Transmission Rate: Asynchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps; Asynchronous/Synchronous - 2,400 bps, 4,800 bps, 9,600 bps
Code Conversion: Ascii to Ebcdic
Protocol Conversion: Ascii to 3270/BSC, Ascii to SDLC/SNA
Features: Concentration, Automatic Data Rate Detection, Dial-up Modem Support
Price: $8,950 to $14,950
Distribution Method: End user, Third-party
Number Installed to Date: Under 100
(See Vendor Profile Page V-10)

DIGITAL ASSOCIATES CORP.
COMMUNICATION PRINTER INTERFACE 7141
Conversion Function: Interface Conversion
Number of Ports Supported: 1
Transmission Mode: Half-Duplex, Full-Duplex
Standard Transmission Rate: Synchronous - 1,800 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps
Code Conversion: Ebcdic to Ascii
Interface Conversion: IBM 2780, 3780 to Parallel
Features: Data Compression, Diagnostics, Polling, Automatic Parity Recognition, Autorenewer
Price: $1,800
Monthly Maintenance Fee: $40
Distribution Method: End user
Number Installed to Date: Under 100
Date First Installed: 1979
(See Vendor Profile Page V-10)

DIGITAL ASSOCIATES CORP.
RLPS 881000
Conversion Function: Interface Conversion
Number of Ports Supported: 2
Transmission Mode: Half-Duplex, Full-Duplex
Standard Transmission Rate: Synchronous - 1,800 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps, 19,200 bps
Code Conversion: Any Code to Standard
Interface Conversion: Parallel to RS-232C
Protocol Conversion: Parallel to Synchronous X.25
Features: Data Compression, Diagnostics, Polling, Automatic Parity Recognition, Autorenewer, Autodial
Price: $8,750

"GET IBM 3270, 3780 AND HASP COMMUNICATIONS— ADDING A ONE-BOARD PROCESSOR TO MY PC?"

"YOU CAN WITH PERSYST."

The Persyst DCP/88. The only compatible front end communications processor that can support a range of IBM communications.

It's a Persyst exclusive.

The DCP/88 distributed communications processor. A one-board computer that can be configured by software to handle communicetions between e PC and another computer system.

In fect, the DCP/88 enables the IBM or TI PC to support a renge of sophisticated IBM communications—all with just one processor.

So it gives corporete users unprecedented, low-cost flexibility to incorporete the PC into virtually any environment.

Convert any PC into an IBM 3270 terminal. An IBM 2780/3780 RJE workstation. Or a HASP/RJE workstation—instantly.

Just combine the DCP/88 with Persyst software—and you can connect your PC to any compatible host mainframe or minicomputer.

PC/3270 enables your PC to emulate an IBM 3274 Cluster control unit and 3278 terminal, supporting up to four additional devices. Including e printer and three other PCs functioning as 3278 terminals.

PC/3780 converts your PC into a 2780/3780 remote job entry terminal that can send and receive batch files to and from the host.

And with PC/HASP, your PC instantly becomes a full-function HASP/RJE workstation that can support up to seven input and seven output multi-leaved job streams concurrently.

Capability to support your communications needs now. And in the future.

Beceuse the DCP/88 supports bisync, SDLC, HDLC and async protocols, it is the only communications processor you'll ever heve to buy.

Use it to connect your PC to an expanding network of IBM communications. Configure your system to meet virtually any communications need—without edding another piece of hardware. Or expense.

All of which makes the DCP/88 as practical as it is powerful.

The Persyst Coax/3278. Still another way to expand your IBM communications.

Here's another fast way to incorporate the PC into existing SNA or bisync data processing installations.

The Coax/3278. A single-slot expansion board that converts your PC into an IBM 3278 displey terminal. And with its high-speed coaxial port, you can connect the PC directly to IBM 3274 or 3276 cluster controllers.

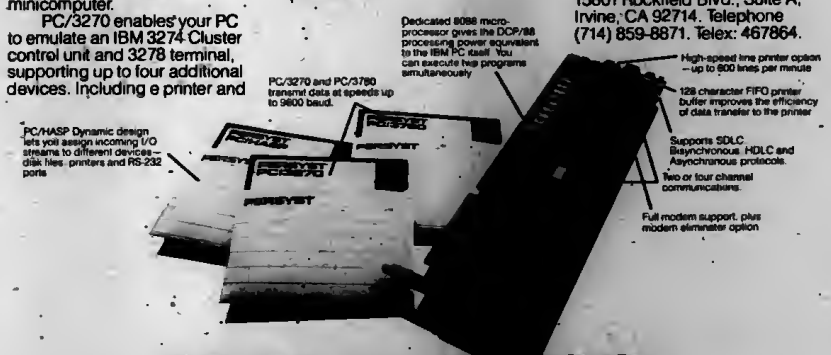
Sophisticated communications products for the corporate user. Insist on Persyst.

Persyst communications products are designed to make corporate information systems more powerful. And more efficient.

Write or call Persyst today for complete information.

PERSYST

Persyst Products, Personal Systems Technology, Inc., 15801 Rockfield Blvd., Suite A, Irvine, CA 92714. Telephone (714) 859-8871. Telex: 467864.


Dedicated 8088 microprocessor gives the DCP/88 processing power equivalent to the IBM PC itself. You can execute two programs simultaneously
PC/3270 and PC/3780 transmit data at speeds up to 9600 baud.
PC/HASP Dynamic design lets you assign incoming I/O streams to different devices—disk files, printers and RS-232 ports
High-speed line printer option—up to 600 lines per minute
128 character FIFO printer buffer improves the efficiency of data transfer to the printer
Supports SDLC Bisynchronous, HDLC and Asynchronous protocols.
Two or four channel communications.
Full modem support, plus modem eliminator option
PERSYST

THE DCP/88 BY PERSYST.

Monthly Maintenance Fee: $40
Distribution Method: End user
Number Installed to Date: Under 100
Date First Installed: 1981

DIVERSIFIED DATA RESOURCES, INC.
HYDRA II
Conversion Function: Code Conversion
Number of Ports Supported: 19
Transmission Mode: Full-Duplex
Standard Transmission Rate: Asynchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps
Code Conversion: Ascii to Ebcdic, Ebcdic to Ascii
Features: Diagnostics, Automatic Data Rate Detection, Automatic Parity Recognition, Redundant Data Suppression
Price: $6,900 to $9,900
Distribution Method: End user
Number Installed to Date: Under 100
Date First Installed: January 1983
(See Vendor Profile Page V-10)

DYNATECH DATA SYSTEMS
DYNA-TEST 1600
Conversion Function: Interface Conversion, Code Conversion
Transmission Mode: Half-Duplex, Full-Duplex
Standard Transmission Rate: Asynchronous/Synchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps, 19,200 bps, 56,000 bps
Code Conversion: Ascii to Ebcdic, Ebcdic to Ascii
Interface Conversion: RS-449 to RS-232, V.35 to RS-232, Bell 303 to RS-232
Mode Conversion: Half-Duplex to Full-Duplex, Full-Duplex to Half-Duplex
Features: Diagnostics, Polling, Automatic Data Rate Detection, Automatic Parity Recognition, Autoanswer, High-Speed Integral Tape
Price: $8,000
Monthly Maintenance Fee: $35
Distribution Method: End user, Third-party
Number Installed to Date: 500 - 1,000
Date First Installed: 1980
(See Vendor Profile Page V-11)

DYNATECH DATA SYSTEMS
DYNA-TEST 2600 C
Conversion Function: Interface Conversion, Code Conversion
Transmission Mode: Half-Duplex, Full-Duplex
Standard Transmission Rate: Asynchronous/Synchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,800 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps, 19,200 bps
Code Conversion: Ascii to Ebcdic, Ebcdic to Ascii
Interface Conversion: RS-449 to RS-232, V.35 to RS-232, Bell 303 to RS-232
Mode Conversion: Half-Duplex to Full-Duplex, Full-Duplex to Half-Duplex
Protocol Conversion: SDLC/SNA to Synchronous
Features: Diagnostics, Polling, Automatic Data Rate Detection, Automatic Parity Recognition, Switch Selectable Emulator
Price: $13,000
Monthly Maintenance Fee: $45
Distribution Method: End user, Third-party
Number Installed to Date: 500 - 1,000

DYNATECH PACKET TECHNOLOGY, INC.
MULTI-PAD X.25
Conversion Function: Code Conversion, Protocol Conversion, Speed Conversion
Number of Ports Supported: 19
Transmission Mode: Full-Duplex
Standard Transmission Rate: Asynchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps
Code Conversion: Ascii to Asynchronous X.25, Baudot to Synchronous X.25
Interface Conversion: RS-232 to RS-232
Mode Conversion: Half-Duplex to Full-Duplex, Full-Duplex to Half-Duplex
Protocol Conversion: Asynchronous Ascii to X.25, Asynchronous Baudot to X.25
Features: Concentration, Data Compression, Diagnostics, Automatic Data Rate Detection, Automatic Parity Recognition, Autoanswer, Autospeed, Autoparity
Price: $2,695 to $3,400
Distribution Method: End user
Number Installed to Date: 100 - 500
Date First Installed: December 1982
(See Vendor Profile Page V-11)

DYNATECH PACKET TECHNOLOGY, INC.
MULTI-PLEX X.25
Conversion Function: Code Conversion, Protocol Conversion, Speed Conversion
Number of Ports Supported: 9
Transmission Mode: Full-Duplex
Standard Transmission Rate: Asynchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps
Code Conversion: Ascii to X.25
Interface Conversion: RS-232 to RS-232
Mode Conversion: Half-Duplex to Full-Duplex
Protocol Conversion: Asynchronous Ascii to X.25
Features: Concentration, Data Compression, Diagnostics, Automatic Data Rate Detection, Automatic Parity Recognition, Autoanswer, Autospeed, Autoparity
Price: $1,895 to $2,695
Distribution Method: End user
Number Installed to Date: 500 - 1,000
Date First Installed: December 1980

EDGE TECHNOLOGY
MESSAGE HANDLER
Conversion Function: Interface Conversion, Code Conversion, Protocol Conversion, Speed Conversion
Number of Ports Supported: 3
Transmission Mode: Half-Duplex, Full-Duplex
Standard Transmission Rate: Asynchronous - 9,600 bps
Code Conversion: Baudot to Ascii, Ascii to Baudot
Interface Conversion: RS-232C to CCITT V.27
Mode Conversion: Half-Duplex to Full-Duplex, Full-Duplex to Half-Duplex
Features: Diagnostics, Polling, Automatic Data Rate Detection, Autoanswer
Price: $495 to $1,995
Distribution Method: OEM
Number Installed to Date: 500 - 1,000
Date First Installed: 1978
(See Vendor Profile Page V-11)

FORESCAN, INC.
FS-100 CODEM
Conversion Function: Interface Conversion, Code Conversion, Protocol Conversion, Speed Conversion, Full Document Conversion
Number of Ports Supported: 2
Transmission Mode: Half-Duplex, Full-Duplex
Standard Transmission Rate: Synchronous - 2,400 bps, Asynchronous - 9,600 bps
Code Conversion: Ascii to Configured, Ebcdic to Configured, Typesetting to Configured
Interface Conversion: Asynchronous to BSC, BSC to BSC, Asynchronous to Asynchronous
Mode Conversion: Half-Duplex to Full-Duplex, Full-Duplex to Half-Duplex
Protocol Conversion: Teletype to Configured, 2770 to Configured, 3780 to Configured
Features: Diagnostics, Polling, Automatic Data Rate Detection, Automatic Parity Recognition, Autoanswer
Price: $13,000
Distribution Method: End user
Number Installed to Date: Under 100
Date First Installed: September 1982
(See Vendor Profile Page V-12)

GANDALF DATA, INC.
IPC 200 SERIES
Conversion Function: Interface Conversion
Number of Ports Supported: 1
Code Conversion: RS-232C to RS-422 or RS-423, CCITT V.35 to RS-232C, Bell 301 or RS-422, RS-423 to RS-232C
Price: $400 to $650
Distribution Method: End user
Number Installed to Date: 1,000 - 5,000
(See Vendor Profile Page V-12)

GANDALF DATA, INC.
PIN 3270E-7
Conversion Function: 3270-Type Controller
Number of Ports Supported: 19
Transmission Mode: Full-Duplex
Standard Transmission Rate: Asynchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps
Protocol Conversion: TTY II to 3270 BSC
Features: Diagnostics, User Programmable
Price: $7,600 to $13,000
Distribution Method: End user
Number Installed to Date: Under 100
Date First Installed: 1983

GATEWAY COMMUNICATIONS, INC.
GATEWAY PROCESSOR
Conversion Function: Interface Conversion, Code Conversion, Protocol Conversion, Speed Conversion, Emulator
Number of Ports Supported: 19
Transmission Mode: Half-Duplex, Full-Duplex
Standard Transmission Rate: Asynchronous - 110 bps, 300 bps, 600 bps, 1,800 bps, 1,800 bps, 9,600 bps, Asynchronous/Synchronous - 2,400 bps, 3,600 bps, 4,800 bps, 7,800 bps, 19,200 bps
Code Conversion: Ascii to Ebcdic, Ebcdic to Ascii
Interface Conversion: SNA to Ascii, SNA to BSC, BSC to SNA
Mode Conversion: Half-Duplex to Full-Duplex, Full-Duplex to Half-Duplex
Protocol Conversion: 3270 SNA to Ascii, BSC 3270 to Ascii
Features: Concentration, Diagnostics, Polling, Automatic Data Rate Detection, Automatic Parity Recognition, Autoanswer
Price: $1,560
Distribution Method: Third-party
(See Vendor Profile Page V-12)

GATEWAY COMMUNICATIONS, INC.
GATEWAY PROCESSOR
Conversion Function: Interface Conversion, Code Conversion, Protocol Conversion, Speed Conversion, Emulator
Number of Ports Supported: 19
Transmission Mode: Half-Duplex, Full-Duplex
Standard Transmission Rate: Asynchronous - 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, Asynchronous/Synchronous - 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 19,200 bps

Code Conversion: Ascii to Abcdic, Ebcdic to Ascii
Interface Conversion: SNA to Ascii, SNA to BSC, BSC to SNA
Mode Conversion: Half-Duplex to Full-Duplex, Full-Duplex to Half-Duplex
Protocol Conversion: 3270 SNA to Ascii, BSC 3270 to Ascii
Features: Concentration, Diagnostics, Polling, Automatic Data Rate Detection, Automatic Parity Recognition, Autosenser
Price: $1,560
Distribution Method: Third-party

HENRIKSEN DATA SYSTEMS
COMMCENTER 2
Conversion Function: Interface Conversion, Code Conversion, Speed Conversion
Number of Ports Supported: 2
Transmission Mode: Half-Duplex, Full-Duplex
Code Conversion: Ascii to Ebcdic, Ascii to Baudot
Interface Conversion: RS-232 to RG-11
Features: Polling, Automatic Data Rate Detection, Automatic Parity Recognition, Autosenser
Price: $995
Distribution Method: Third-party
Number Installed to Date: 5,000 - 10,000
Date First Installed: April 1980
(See Vendor Profile Page V-14)

IBM CORP.
7426
Conversion Function: Protocol Conversion
Transmission Mode: Half-Duplex, Full-Duplex
Standard Transmission Rate: Asynchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps
Protocol Conversion: Ascii to SDLC
Features: Diagnostics, Autosenser
(See Vendor Profile Page V-14)

ICOT CORP.
VTS 362
Conversion Function: Code Conversion, Protocol Conversion, Speed Conversion
Number of Ports Supported: 18
Transmission Mode: Full-Duplex
Standard Transmission Rate: Asynchronous/Synchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps, 19,200 bps
Code Conversion: Ascii to 3270 Ebcdic
Mode Conversion: Half-Duplex to Full-Duplex, Full-Duplex to Half-Duplex
Protocol Conversion: Ascii to Bisynchronous, Ascii to SDLC
Features: Concentration, Data Compression, Diagnostics, Polling, Automatic Data Rate Detection, Automatic Parity Recognition, Autosenser, Multiple Host, Automatic Log-on
Price: $5,800 to $8,200
Distribution Method: Third-party
Number Installed to Date: Under 100
Date First Installed: 1982
(See Vendor Profile Page V-15)

IDE ASSOCIATES, INC.
IDECOMM 3278/NPR-001 SPR-IN
Conversion Function: Emulator
Number of Ports Supported: 1
Transmission Mode: Half-Duplex
Standard Transmission Rate: 25000 bps
Code Conversion: IBM PC to IBM 3278/3274
Interface Conversion: IBM PC to IBM 3278/3274
Protocol Conversion: IBM PC to IBM 3278/3274
Features: Diagnostics, 3278/3274 to IBM PC Conversion
Price: $1,195
Distribution Method: Third-party
Number Installed to Date: Under 100
Date First Installed: December 1983
(See Vendor Profile Page V-15)

INNOVATEK MICROSYSTEMS, INC.
IM SERIES 570
Conversion Function: Interface Conversion, Code Conversion, Protocol Conversion, Speed Conversion
Number of Ports Supported: 5
Transmission Mode: Half-Duplex, Full-Duplex
Standard Transmission Rate: Asynchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps, 19,200 bps
Code Conversion: Ascii to Ebcdic, Ebcdic to Ascii, Serial to Parallel
Interface Conversion: Ascii to Ebcdic, Ebcdic to Ascii, Serial to Parallel
Mode Conversion: Half-Duplex to Full-Duplex, Full-Duplex to Half-Duplex
Protocol Conversion: Asynchronous to Printer
Features: Diagnostics, Polling, Automatic Data Rate Detection, Automatic Parity Recognition, Autosenser
Price: $600 to $2,000
Distribution Method: OEM
Number Installed to Date: Under 100
Date First Installed: 1981
(See Vendor Profile Page V-16)

INNOVATIVE ELECTRONICS, INC.
MC-80/100
Conversion Function: Protocol Conversion, Emulator
Number of Ports Supported: 2
Transmission Mode: Half-Duplex, Full-Duplex
Standard Transmission Rate: Asynchronous - 9,600 bps, Synchronous - 19,200 bps
Protocol Conversion: 3780/3780 BSC to Asynchronous Ascii
Features: Diagnostics, Polling, Autosenser
Price: $1,445 to $1,845
Distribution Method: End user
Number Installed to Date: 100 - 500
Date First Installed: January 1980
(See Vendor Profile Page V-16)

INNOVATIVE ELECTRONICS, INC.
MC-80/200
Conversion Function: Protocol Conversion
Number of Ports Supported: 2
Transmission Mode: Half-Duplex, Full-Duplex
Standard Transmission Rate: Asynchronous - 9,600 bps, Synchronous - 19,200 bps
Protocol Conversion: Burroughs Poll/Select to Asynchronous Ascii
Features: Diagnostics, Polling, Autosenser
Price: $1,445 to $1,845
Distribution Method: End user
Number Installed to Date: 500 - 1,000
Date First Installed: January 1980

INNOVATIVE ELECTRONICS, INC.
MC-80/300
Conversion Function: Protocol Conversion
Number of Ports Supported: 2
Transmission Mode: Half-Duplex, Full-Duplex
Standard Transmission Rate: Synchronous - 9,600 bps; Asynchronous - 19,200 bps
Protocol Conversion: IBM 3270 BSC to Burroughs Poll/Select
Features: Diagnostics, Polling, Autosenser
Price: $2,095 to $2,245
Distribution Method: End user
Number Installed to Date: 100 - 500
Date First Installed: January 1980

INNOVATIVE ELECTRONICS, INC.
MC-80/400
Conversion Function: Protocol Conversion
Number of Ports Supported: 2
Transmission Mode: Half-Duplex, Full-Duplex
Standard Transmission Rate: Asynchronous - 9,600 bps, Synchronous - 19,200 bps
Protocol Conversion: IBM 3270 BSC to NCR Poll/Select
Features: Diagnostics, Polling, Autosenser
Price: $2,095 to $2,245
Distribution Method: End user
Number Installed to Date: 100 - 500
Date First Installed: January 1980

INNOVATIVE ELECTRONICS, INC.
MC-80/600
Conversion Function: Protocol Conversion, Emulator
Number of Ports Supported: 2
Transmission Mode: Half-Duplex, Full-Duplex
Standard Transmission Rate: Asynchronous - 9,600 bps, Synchronous - 19,200 bps
Code Conversion: Ebcdic to Ascii
Mode Conversion: Synchronous to Asynchronous
Protocol Conversion: 3270 BSC to Asynchronous Ascii
Features: Diagnostics, Polling, Autosenser
Price: $1,495 to $1,695
Distribution Method: End user
Number Installed to Date: 100 - 600
Date First Installed: October 1980

INNOVATIVE ELECTRONICS, INC.
MC-80/602
Conversion Function: Protocol Conversion
Number of Ports Supported: 1
Transmission Mode: Half-Duplex, Full-Duplex
Standard Transmission Rate: Asynchronous - 9,600 bps, Synchronous - 19,200 bps
Protocol Conversion: 3270 BSC to Asynchronous Ascii
Features: Diagnostics, Polling, Autosenser
Price: $1,650
Distribution Method: End user
Number Installed to Date: Under 100
Date First Installed: December 1982

INTECOM, INC.
3270 IPC
Conversion Function: Code Conversion, Protocol Conversion, Speed Conversion, Emulator
Number of Ports Supported: 19
Transmission Mode: Half-Duplex
Standard Transmission Rate: Asynchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps, 19,200 bps
Code Conversion: Ascii to IBM 3270 Bisynchronous
Protocol Conversion: Ascii to 3270 Bisynchronous
Features: Diagnostics, Automatic Data Rate Detection, Automatic Parity Recognition, Autosenser, Multiplexing
Price: $15,000
Distribution Method: End user
Number Installed to Date: Under 100
Date First Installed: 1983
(See Vendor Profile Page V-16)

INTECOM, INC.
X.25 IPC
Conversion Function: Code Conversion, Protocol Conversion, Speed Conversion, Emulator
Number of Ports Supported: 19
Transmission Mode: Half-Duplex, Full-Duplex
Standard Transmission Rate: Asynchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 19,200 bps; Asynchronous/Synchronous - 9,600 bps
Code Conversion: Ascii to X.25 Packet

Converters/Emulators

Mode Conversion: Half-Duplex to Full-Duplex, Full-Duplex to Half-Duplex
Protocol Conversion: Ascii to X.25
Features: Diagnostics, Automatic Data Rate Detection, Automatic Parity Recognition, Autoanswer, Multiplexer
Price: $15,000
Distribution Method: End user
Number Installed to Date: Under 100
Date First Installed: 1983

INTEGRATED DESIGN ENGINEERING, INC.
IDE-3011
Conversion Function: Protocol Conversion, Speed Conversion
Number of Ports Supported: 1
Transmission Mode: Half-Duplex, Full-Duplex
Standard Transmission Rate: Asynchronous - 75 bps, 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps, 19,200 bps
Mode Conversion: Half-Duplex to Full-Duplex, Full-Duplex to Half-Duplex
Protocol Conversion: NCR 301 to Serial TTY
Features: Diagnostics, Polling, Automatic Parity Recognition
Price: $500
Distribution Method: End user
Number Installed to Date: Under 100
Date First Installed: 1982
(See Vendor Profile Page V-16)

INTEGRATED DESIGN ENGINEERING, INC.
IDE-3019
Conversion Function: Protocol Conversion, Speed Conversion, Emulator
Number of Ports Supported: 1
Transmission Mode: Half-Duplex, Full-Duplex
Standard Transmission Rate: Asynchronous - 50 bps, 75 bps, 110 bps, 600 bps, 600 bps, 1,200 bps, 1,200 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps, 19,200 bps
Mode Conversion: Half-Duplex to Full-Duplex, Full-Duplex to Half-Duplex
Protocol Conversion: NCR 301 to Serial TTY
Features: Diagnostics, Polling, Automatic Parity Recognition
Price: $500
Distribution Method: End user
Number Installed to Date: Under 100
Date First Installed: September 1982

INTEGRATED DESIGN ENGINEERING, INC.
IDE-3014
Conversion Function: Protocol Conversion, Speed Conversion
Number of Ports Supported: 4
Transmission Mode: Half-Duplex, Full-Duplex
Standard Transmission Rate: Asynchronous - 50 bps, 75 bps, 110 bps, 600 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,200 bps, 7,200 bps, 9,600 bps, 19,200 bps
Mode Conversion: Half-Duplex to Full-Duplex, Full-Duplex to Half-Duplex
Protocol Conversion: NCR 301 to Serial TTY
Features: Concentration, Diagnostics, Polling, Automatic Parity Recognition
Price: $1,600
Distribution Method: End user
Number Installed to Date: Under 100
Date First Installed: 1982

INTEGRATED DESIGN ENGINEERING, INC.
IDE-3018
Conversion Function: Protocol Conversion, Speed Conversion, Emulator
Number of Ports Supported: 1
Transmission Mode: Half-Duplex, Full-Duplex
Standard Transmission Rate: Asynchronous - 50 bps, 75 bps, 110 bps, 600 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps, 19,200 bps
Interface Conversion: NCR PC BUS to RS-232
Mode Conversion: Half-Duplex to Full-Duplex, Full-Duplex to Half-Duplex
Protocol Conversion: NCR 301 to Serial TTY
Features: Diagnostics, Polling, Automatic Parity Recognition
Price: $450
Distribution Method: End user
Number Installed to Date: Under 100
Date First Installed: 1983

INTEGRATED DESIGN ENGINEERING, INC.
IDE-3016
Conversion Function: Protocol Conversion, Speed Conversion, Emulator
Number of Ports Supported: 4
Transmission Mode: Half-Duplex, Full-Duplex
Standard Transmission Rate: Asynchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,200 bps, 1,200 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,200 bps, 19,200 bps
Mode Conversion: Half-Duplex to Full-Duplex, Full-Duplex to Half-Duplex
Protocol Conversion: NCR 301 to Serial TTY
Features: Concentration, Diagnostics, Polling, Automatic Parity Recognition
Price: $1,850
Distribution Method: End user
Number Installed to Date: Under 100
Date First Installed: September 1982

INTEGRATED DESIGN ENGINEERING, INC.
IDE-3019
Conversion Function: Protocol Conversion, Speed Conversion, Emulator
Number of Ports Supported: 4
Transmission Mode: Half-Duplex, Full-Duplex
Standard Transmission Rate: Asynchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,200 bps, 1,200 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,200 bps, 19,200 bps
Mode Conversion: Half-Duplex to Full-Duplex, Full-Duplex to Half-Duplex
Protocol Conversion: NCR 301 to Serial TTY
Features: Concentration, Diagnostics, Polling, Automatic Parity Recognition
Price: $1,850
Distribution Method: End user
Number Installed to Date: Under 100
Date First Installed: 1982

INTELLIGENT BUSINESS SYSTEMS, INC.
CSX 1684
Conversion Function: Code Conversion, Protocol Conversion
Number of Ports Supported: 2,048
Transmission Mode: Full-Duplex
Standard Transmission Rate: Asynchronous - 50 bps, 75 bps, 110 bps, 600 bps, 9,600; Asynchronous/Synchronous - 600 bps, 1,200 bps, 1,200 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps
Code Conversion: Baudot to Ascii, CCITT X.62 to Telex
Protocol Conversion: PSTN DDD to Telex, Telotex to Telex, X.71 to X.75
Features: Concentration, Data Compression, Diagnostics, Polling, Automatic Data Rate Detection, Automatic Parity Recognition, Autoanswer
Price: $60,000
Distribution Method: End user
Number Installed to Date: Under 100
Date First Installed: January 1984
(See Vendor Profile Page V-16)

INTELLIGENT BUSINESS SYSTEMS, INC.
CSX-1684
Conversion Function: Code Conversion, Speed Conversion
Number of Ports Supported: 2,048
Transmission Mode: Full-Duplex
Standard Transmission Rate: Asynchronous/Synchronous - 50 bps, 75 bps, 110 bps, 600 bps, 600 bps, 1,200 bps, 1,200 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps; Synchronous - 19,200 bps, 64,000 bps
Code Conversion: Ascii to Baudot, X.61 to Telex
Protocol Conversion: X.71 to X.75, Telex to Telotex, PSTN (DDD) to Telex
Features: Concentration, Data Compression, Diagnostics, Polling, Automatic Data Rate Detection, Automatic Parity Recognition, Autoanswer, Full Redundancy
Price: $60,000
Distribution Method: End user
Number Installed to Date: Under 100
Date First Installed: February 1982

INTER-LINK
9101/2001
Conversion Function: Code Conversion, Protocol Conversion
Number of Ports Supported: 5
Transmission Mode: Half-Duplex, Full-Duplex
Standard Transmission Rate: Asynchronous/Synchronous - 9,600 bps
Code Conversion: Ascii to Ebcdic, Ebcdic to Ascii
Protocol Conversion: IBM BSC to Asynchronous Ascii, IBM SDLC/SNA to Asynchronous Ascii
Features: Concentration, Diagnostics, Polling, Automatic Data Rate Detection, Automatic Parity Recognition, Autoanswer
Price: $995 to $1,600
Monthly Maintenance Fee: $20
Distribution Method: Third-party
Number Installed to Date: Under 100
Date First Installed: September 1982
(See Vendor Profile Page V-16)

INTERGL SYSTEMS, INC.
8276-1
Conversion Function: Interface Conversion, Code Conversion, Protocol Conversion, Speed Conversion, Emulator
Number of Ports Supported: 8
Transmission Mode: Full-Duplex
Standard Transmission Rate: Asynchronous/Synchronous - 50 bps, 75 bps, 110 bps, 600 bps, 600 bps, 1,200 bps, 1,200 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps
Code Conversion: Ascii to BSC
Interface Conversion: Ascii to BSC
Mode Conversion: Half-Duplex to Full-Duplex, Full-Duplex to Half-Duplex
Protocol Conversion: Ascii to BSC
Features: Diagnostics, Polling, Automatic Data Rate Detection, Automatic Parity Recognition, Autoanswer
Price: $3,500
Monthly Maintenance Fee: $35
Distribution Method: End user
Number Installed to Date: Under 100
Date First Installed: February 1981
(See Vendor Profile Page V-17)

INTERGL SYSTEMS, INC.
8276-12
Conversion Function: Interface Conversion, Code Conversion, Protocol Conversion, Speed Conversion, Emulator
Number of Ports Supported: 8
Transmission Mode: Full-Duplex
Standard Transmission Rate:

Asynchronous/Synchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,800 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps
Code Conversion: Ascii to SDLC
Interface Conversion: Ascii to SNA
Mode Conversion: Half-Duplex to Full-Duplex, Full-Duplex to Half-Duplex
Protocol Conversion: Ascii to BSC
Features: Diagnostics, Polling, Automatic Data Rate Detection, Automatic Parity Recognition
Price: $3,800
Monthly Maintenance Fee: $35
Distribution Method: End user
Number Installed to Date: Under 100
Date First Installed: February 1981

ITEK COMPOSITION SYSTEMS
MULTIDISK READER
Conversion Function: Floppy Disk Conversion
Number of Ports Supported: 1
Transmission Mode: Half-Duplex, Full-Duplex
Standard Transmission Rate: Asynchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps, 19,800 bps
Code Conversion: Ascii to Ascii
Features: Reads Floppy Disk, WP, PC
Price: $12,600 to $15,800
Distribution Method: OEM
Number Installed to Date: 100 - 500
Date First Installed: 1982
(See Vendor Profile Page V-17)

J B M ELECTRONICS
ASYNCHRONOUS PROTOCOL CONVERTERS
Conversion Function: Code Conversion, Protocol Conversion, Speed Conversion
Number of Ports Supported: 19
Transmission Mode: Full-Duplex
Standard Transmission Rate: Synchronous - 1,800 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,800 bps, 9,800 bps, 19,800 bps
Code Conversion: Ascii to Ebcdic, Ebcdic to Ascii
Mode Conversion: Half-Duplex to Full-Duplex, Full-Duplex to Half-Duplex
Protocol Conversion: 3275 Synchronous to Asynchronous, 3270 SNA to Asynchronous
Features: Concentration, Diagnostics, Polling, Automatic Data Rate Detection, Autorenewer
Price: $995
Distribution Method: Third-party
Number Installed to Date: 600 - 1,000
Date First Installed: September 1979
(See Vendor Profile Page V-17)

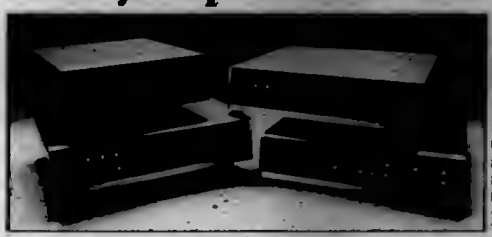
KAUFMAN RESEARCH MANUFACTURING, INC.
MODEL 970
Conversion Function: Code Conversion, Protocol Conversion, Speed Conversion, Emulator
Number of Ports Supported: 9
Transmission Mode: Full-Duplex, Block Mode Operation
Standard Transmission Rate: Asynchronous - 75 bps, 110 bps, 300 bps, 600 bps, 9,600 bps; Asynchronous/Synchronous - 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 19,200 bps
Code Conversion: Ascii to Ebcdic
Protocol Conversion: Ascii to IBM 3270 BSC
Features: Concentration, Polling, Automatic Data Rate Detection, Autorenewer
Price: $3,395 to $6,295
Monthly Maintenance Fee: $95
Distribution Method: End user, OEM, Third-party
Number Installed to Date: 100 - 600
Date First Installed: January 1980
(See Vendor Profile Page V-17)

KAUFMAN RESEARCH MANUFACTURING, INC.
MODEL 971
Conversion Function: Code Conversion, Protocol Conversion, Speed Conversion, Emulator
Number of Ports Supported: 9
Transmission Mode: Full-Duplex, Block Mode Operation
Standard Transmission Rate: Asynchronous - 75 bps, 110 bps, 600 bps, 600 bps, 9,600 bps, Asynchronous/Synchronous - 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 19,800 bps
Code Conversion: Ascii to Ebcdic
Protocol Conversion: Ascii to Sperry Uniscope
Features: Concentration, Polling, Automatic Data Rate Detection, Autorenewer
Price: $3,395 to $6,295
Monthly Maintenance Fee: $95
Distribution Method: End user, OEM, Third-party
Number Installed to Date: 100 - 500
Date First Installed: January 1980

KAUFMAN RESEARCH MANUFACTURING, INC.
MODEL 972
Conversion Function: Code Conversion, Protocol Conversion, Speed Conversion, Emulator

Here are a few good reasons why you should make Local Data your protocol converter company.

Local Data's comprehensive line of local and remote protocol converters have been used around the world to make async-to-IBM communications simple and economical.



DATALYNX™/3274.
DataLynx™/3274 remote async ASCII protocol converter supports SNA/SDLC or BSC protocols. 80 types of ASCII async terminals can emulate IBM 3278 display stations. RS-232C ASCII async printers can emulate IBM 328X printers.

DATALYNX™/3780.
DataLynx™/3780 async ASCII-to-IBM 3780, 2780, 2770 and 3741 protocol converter supports EBCDIC BSC protocol on one channel and async ASCII devices on the other two channels. Features include transparency, mini/micro support and free file transfer program.

INTERLYNX™/3278.
InterLynx™/3278 allows the attachment of low-cost ASCII CRT terminals or p.c.'s to 3274/3276/4701 and 43XX integrated adaptor Type "A" coax ports. InterLynx/3278 enables the user to use async CRT's on IBM systems and switch to async applications under terminal control.

FILELYNX™/3278.
For micro-mainframe file transfers.

INTERLYNX™/3287.
InterLynx™/3287 allows attachment of ASCII printers to IBM Type "A" coax ports or 3274/3276/4701 controller and 4321/4331 CPU's.

SNA LU1 SCS and LU3 capability are standard with the InterLynx/3287. Features include parallel and serial ports and front panel set-up.

For more information call today.

LOCAL DATA • 2701 Toledo Street • Suite 706 • Torrance • CA • 90503
Telephone (213) 320-7126
Telex # 182518

Local Data

Local Data
"Your Lynx to IBM."

Converters/Emulators

Number of Ports Supported: 8
Transmission Mode: Full-Duplex, Block Mode Operation
Standard Transmission Rate: Asynchronous - 75 bps, 110 bps, 300 bps, 600 bps, 9,600 bps; Asynchronous/Synchronous - 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 19,200 bps
Code Conversion: Ascii to Ebcdic
Protocol Conversion: Ascii to 3270 SNA/SDLC
Features: Concentration, Polling, Automatic Data Rate Detection, Autoanswer
Price: $3,395 to $8,295
Monthly Maintenance Fee: $85
Distribution Method: End user, OEM, Third-party
Number Installed to Date: 100 - 500
Date First Installed: January 1980

KMW SYSTEMS CORP.
2780/3780
Conversion Function: Interface Conversion, Code Conversion, Protocol Conversion, Speed Conversion, Emulator
Number of Ports Supported: 3
Transmission Mode: Full-Duplex
Standard Transmission Rate: Asynchronous/Synchronous - 110 bps, 300 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps, 19,200 bps
Code Conversion: Ebcdic to Ascii, Ebcdic to Binary, Ebcdic to Card Punch
Interface Conversion: RS-232 Synchronous to Async, RS-232 Synchronous to Printer, RS-232 Synchronous to Card Reader
Mode Conversion: From Full-Duplex to Half-Duplex, Full to Full
Protocol Conversion: BSC to Asynchronous Ascii
Features: Concentration, Data Compression, Diagnostics, Polling, Automatic Data Rate Detection, Automatic Parity Recognition, Autoanswer
Price: $1,995
Monthly Maintenance Fee: $1
Distribution Method: Third-party
Number Installed to Date: 100 - 300
Date First Installed: 1978
(See Vendor Profile Page V-17)

KMW SYSTEMS CORP.
3770
Conversion Function: Interface Conversion, Code Conversion, Protocol Conversion, Speed Conversion, Emulator
Number of Ports Supported: 8
Transmission Mode: Half-Duplex, Full-Duplex
Standard Transmission Rate: Asynchronous/Synchronous - 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps, 19,200 bps
Code Conversion: Ebcdic to Ascii, Ebcdic to Binary
Interface Conversion: RS-232 Synchronous to RS-232 Asynchronous, RS-232 Synchronous to Binary, RS-232 Synchronous to 2780/3780
Mode Conversion: Half-Duplex to Full-Duplex, Full-Duplex to Half-Duplex
Protocol Conversion: Ebcdic SNA/SDLC to Asynchronous RS-232, Ebcdic SNA/SDLC to Synchronous Parallel, Synchronous RS-232 to Synchronous RS-232
Features: Concentration, Data Compression, Diagnostics, Polling, Automatic Data Rate Detection, Automatic Parity Recognition, Autoanswer
Price: $4,550
Distribution Method: Third-party
Number Installed to Date: Under 100
Date First Installed: 1981

KMW SYSTEMS CORP.
3777 SERIES II
Conversion Function: Interface Conversion, Code Conversion, Protocol Conversion, Speed Conversion, Emulator
Number of Ports Supported: 8
Transmission Mode: Half-Duplex, Full-Duplex
Standard Transmission Rate: Synchronous - 110 bps, 300 bps, 1,800 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps, 19,200 bps
Code Conversion: Ebcdic to Ascii, Ascii to Ebcdic
Mode Conversion: Half-Duplex to Full-Duplex, Full-Duplex to Half-Duplex
Protocol Conversion: SNA/SDLC Ebcdic to Asynchronous Ascii
Features: Data Compression, Diagnostics, Polling, Automatic Data Rate Detection, Automatic Parity Recognition, Autoanswer
Price: $4,550
Distribution Method: End user
Number Installed to Date: 100 - 500
Date First Installed: 1979

KMW SYSTEMS CORP.
HASP
Conversion Function: Interface Conversion, Code Conversion, Protocol Conversion, Speed Conversion, Emulator
Number of Ports Supported: 9
Standard Transmission Rate: Asynchronous/Synchronous - 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps, 19,200 bps
Code Conversion: Ebcdic to Ascii, Ebcdic to Binary
Interface Conversion: RS-232 to Synchronous, RS-232 to Ascii, RS-232 Synchronous to Parallel Async
Mode Conversion: Half-Duplex to Full-Duplex, Full-Duplex to Half-Duplex
Protocol Conversion: Synchronous Ebcdic to Asynchronous Ascii, Synchronous Ebcdic to Asynchronous Printer, Synchronous Ebcdic to Binary
Features: Concentration, Data Compression, Diagnostics, Polling, Automatic Data Rate Detection, Automatic Parity Recognition, Autoanswer
Price: $4,550
Monthly Maintenance Fee: $1
Distribution Method: Third-party
Number Installed to Date: 100 - 600
Date First Installed: 1977

LOCAL DATA, INC.
DATALYNX 3274
Conversion Function: Protocol Conversion
Number of Ports Supported: 10
Transmission Mode: Half-Duplex, Full-Duplex
Standard Transmission Rate: Asynchronous - 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,800 bps, 9,600 bps, 19,200 bps
Code Conversion: Ascii to Ebcdic, Ebcdic to Ascii
Protocol Conversion: BSC to Asynchronous, SNA/SDLC to Asynchronous
Features: Concentration, Data Compression, Diagnostics, Polling, Automatic Data Rate Detection, Autoanswer, Auxiliary Printer
Price: $6,000
Distribution Method: End user
Number Installed to Date: 100 - 500
Date First Installed: 1980
(See Vendor Profile Page V-16)

LOCAL DATA, INC.
DATALYNX 3799
Conversion Function: Protocol Conversion
Number of Ports Supported: 3
Transmission Mode: Half-Duplex, Full-Duplex
Standard Transmission Rate: Asynchronous/Synchronous - 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 9,600 bps, 4,800 bps, 7,200 bps, 9,600 bps
Code Conversion: Ascii to Ebcdic, Ebcdic to Ascii
Mode Conversion: Half-Duplex to Full-Duplex, Full-Duplex to Half-Duplex
Protocol Conversion: Asynchronous to BSC
Features: Diagnostics, Polling, Autoanswer, Transparency, Prompt Mode
Price: $1,750
Distribution Method: End user
Number Installed to Date: 300 - 1,000
Date First Installed: September 1980

LOCAL DATA, INC.
INTERLYNX 3276
Conversion Function: Protocol Conversion
Number of Ports Supported: 3
Transmission Mode: Full-Duplex
Standard Transmission Rate: Asynchronous - 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 7,200 bps, 9,600 bps
Code Conversion: Ascii to Ebcdic
Interface Conversion: RS-232C to IBM Type-A Coax
Mode Conversion: Half-Duplex to Full-Duplex
Protocol Conversion: IBM Type-A to Asynchronous
Features: Diagnostics, Automatic Data Rate Detection, Autoanswer, 50 Terminal Types
Price: $1,395
Distribution Method: End user
Number Installed to Date: 100 - 500
Date First Installed: April 1983

LOCAL DATA, INC.
INTERLYNX 3287
Conversion Function: Interface Conversion, Protocol Conversion
Number of Ports Supported: 3
Transmission Mode: Half-Duplex, Full-Duplex
Standard Transmission Rate: Asynchronous - 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps, 19,600 bps
Code Conversion: Ascii to Ebcdic
Interface Conversion: Asynchronous to IBM Type-A
Mode Conversion: From Half-Duplex to Full-Duplex
Protocol Conversion: BSC/SNA to Asynchronous
Features: Diagnostics, Supports RS-232C Centronics
Price: $1,750
Distribution Method: End user
Number Installed to Date: Under 100

MICOM SYSTEMS, INC.
MICRO800/X.25 CONCENTRATOR PAD
Conversion Function: Code Conversion, Protocol Conversion, Speed Conversion
Number of Ports Supported: 24
Transmission Mode: Half-Duplex, Full-Duplex
Standard Transmission Rate: Asynchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps; Asynchronous/Synchronous - 1,200 bps, 1,800 bps, 2,400 bps, 4,800 bps, 19,200 bps, 9,600 bps
Code Conversion: 5-, 6-, 7-, 8-Bit to X.25 8-Bit Character
Mode Conversion: Full-Duplex to Full-Duplex
Protocol Conversion: Asynchronous to X.25, HDLC to X.25
Features: Concentration, Diagnostics, Automatic Data Rate Detection, Automatic Parity Recognition, Autoanswer, Full Support of CCITT X.3, X.28, X.29 Interfaces
Price: $2,050 to $4,600
Distribution Method: Third-party
Number Installed to Date: 300 - 1,000
Date First Installed: September 1982
(See Vendor Profile Page V-19)

MICOM SYSTEMS, INC.
MICRO7400 PROTOCOL CONVERTER
Number of Ports Supported: 12
Transmission Mode: Half-Duplex, Full-Duplex

Standard Transmission Rate: Asynchronous/Synchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps, 19,200 bps
Code Conversion: Ascii to Ebcdic
Protocol Conversion: Ascii to 3270 BSC, Ascii to 3270 SNA
Features: Data Compression, Diagnostics, Polling, Automatic Data Rate Detection, Autosenser, 3270 Terminal Simulation
Price: $1,950 to $4,750
Distribution Method: Third-party
Number Installed to Date: Under 100
Date First Installed: January 1984

MICROLOG, INC.
BABYTALK
Conversion Function: Code Conversion, Emulator
Number of Ports Supported: 3
Transmission Mode: Half-Duplex, Full-Duplex
Standard Transmission Rate: Asynchronous/Synchronous - 300 bps, 600 bps, 1,800 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps
Code Conversion: Ascii to Ebcdic, Ebcdic to Ascii
Interface Conversion: RS-232 to CCITT V.21, RS-232 to CCITT V.23
Features: Diagnostics, Polling, Automatic Data Rate Detection, Automatic Parity Recognition, Autosenser
Price: $695
Distribution Method: End user, OEM, Third-party
Number Installed to Date: 500 - 1,000
(See Vendor Profile Page V-19)

MIDWEST DATA SOURCE
APPLE II
Conversion Function: Interface Conversion, Protocol Conversion, Emulator
Number of Ports Supported: 3
Transmission Mode: Half-Duplex, Full-Duplex
Standard Transmission Rate: Synchronous - 75 bps, 3,600 bps
Code Conversion: Burroughs to Teletype
Protocol Conversion: Burroughs to Teletype
Features: Diagnostics, Polling, Automatic Parity Recognition
Price: $695 to $1,800
(See Vendor Profile Page V-20)

MIDWEST DATA SOURCE
APPLE III
Conversion Function: Interface Conversion, Protocol Conversion, Emulator
Number of Ports Supported: 3
Transmission Mode: Half-Duplex, Full-Duplex
Standard Transmission Rate: Synchronous - 75 bps, 3,600 bps
Interface Conversion: Burroughs to Teletype
Protocol Conversion: Burroughs to Teletype
Features: Diagnostics, Polling, Automatic Parity Recognition
Price: $695 to $1,500

MIDWEST DATA SOURCE
IBM
Conversion Function: Interface Conversion, Protocol Conversion, Emulator
Number of Ports Supported: 3
Transmission Mode: Half-Duplex, Full-Duplex
Standard Transmission Rate: Synchronous - 75 bps, 3,600 bps
Interface Conversion: Burroughs to Teletype
Protocol Conversion: Burroughs to Teletype
Features: Diagnostics, Polling, Automatic Parity Recognition
Price: $140 to $1,200
Distribution Method: End user

MODEMS PLUS, INC.
SMITE ONE
Conversion Function: Interface Conversion, Code Conversion, Protocol Conversion, Speed Conversion, Emulator
Number of Ports Supported: 3
Transmission Mode: Half-Duplex, Full-Duplex
Standard Transmission Rate: Asynchronous/Synchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,800 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps, 19,200 bps
Code Conversion: Ascii to BSC
Interface Conversion: RS-232C to Parallel, RS-232C to RS-232C
Mode Conversion: Half-Duplex to Full-Duplex, Full-Duplex to Half-Duplex
Protocol Conversion: Burroughs to Ascii
Features: Data Compression, Diagnostics, Polling, Autosenser
Price: $1,280
Monthly Maintenance Fee: $10
Distribution Method: Third-party
Number Installed to Date: 500 - 1,000
Date First Installed: June 1981
(See Vendor Profile Page V-30)

MODEMS PLUS, INC.
SMITE ONE
Conversion Function: Interface Conversion, Code Conversion, Protocol Conversion, Speed Conversion, Emulator
Number of Ports Supported: 5
Transmission Mode: Half-Duplex, Full-Duplex
Standard Transmission Rate: Asynchronous/Synchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps, 19,200 bps
Code Conversion: Ascii to BSC, Ascii to SDLC, BSC to SDLC
Interface Conversion: RS-232C to NRZI, RS-232C to Parallel
Mode Conversion: Half-Duplex to Full-Duplex, Full-Duplex to Half-Duplex
Protocol Conversion: IBM BSC to IBM SDLC, Ascii to SDLC
Features: Concentration, Data Compression, Diagnostics, Polling, Autosenser
Price: $3,900
Monthly Maintenance Fee: $25
Distribution Method: Third-party
Number Installed to Date: Under 100
Date First Installed: June 1983

NATIONAL COMPUTER SYSTEMS, INC.
PROTOCOL CONVERTER
Conversion Function: Interface Conversion, Code Conversion, Speed Conversion, Emulator
Number of Ports Supported: 4
Transmission Mode: Full-Duplex
Standard Transmission Rate: Asynchronous - 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps
Code Conversion: Asynchronous to Poll/Select
Interface Conversion: Asynchronous to Poll/Select
Mode Conversion: Half-Duplex to Full-Duplex, Duplex to Half-Duplex
Protocol Conversion: Asynchronous to Poll/Select
Features: Data Compression, Diagnostics, Polling, Automatic Data Rate Detection, Automatic Parity Recognition
Price: $1,800
Distribution Method: End user
Date First Installed: June 1984
(See Vendor Profile Page V-21)

NESTAR SYSTEMS, INC.
3270 BSC
Conversion Function: Emulator
Number of Ports Supported: 19
Transmission Mode: Half-Duplex
Standard Transmission Rate: Synchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps
Code Conversion: Ebcdic to Ascii
Features: Concentration, Data Compression, Diagnostics, Polling
Price: $3,000
Distribution Method: End user
Date First Installed: August 1985
(See Vendor Profile Page V-21)

NESTAR SYSTEMS, INC.
3270 SNA
Conversion Function: Emulator
Number of Ports Supported: 32
Transmission Mode: Full-Duplex
Standard Transmission Rate: Synchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps
Code Conversion: Ebcdic to Ascii
Features: Concentration, Data Compression, Diagnostics, Polling
Price: $4,000
Distribution Method: End user

NORTHERN TELECOM, INC.
PC
Conversion Function: Interface Conversion, Code Conversion, Protocol Conversion, Speed Conversion
Number of Ports Supported: 2
Transmission Mode: Full-Duplex
Standard Transmission Rate: Asynchronous/Synchronous - 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps, Synchronous - 19,200 bps
Code Conversion: Ebcdic to Ascii, Ascii to Ebcdic
Protocol Conversion: HDLC/X.25/BSC to HDLC/X.25/BSC
Features: Data Compression, Diagnostics, Polling, Automatic Data Rate Detection, Automatic Parity Recognition
Price: $4,200
Distribution Method: End user, OEM
Number Installed to Date: Under 100
Date First Installed: November 1983
(See Vendor Profile Page V-22)

NORTHERN TELECOM, INC.
SL-1
Number of Ports Supported: 64
Transmission Mode: Half-Duplex, Full-Duplex
Standard Transmission Rate: Asynchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, Asynchronous/Synchronous - 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps, 19,200 bps, 56,000
Interface Conversion: IBM PC; IBM PC-XT to NT SL-1
Protocol Conversion: Ascii to IBM 3270
Date First Installed: 1984

SNI DATA CORP.
720 PROTOCOL CONVERTER
Conversion Function: Interface Conversion, Code Conversion, Protocol Conversion, Speed Conversion, Emulator
Number of Ports Supported: 4
Transmission Mode: Full-Duplex
Standard Transmission Rate: Asynchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps, 19,200 bps
Code Conversion: Baudot to Ascii, Ascii to Baudot
Interface Conversion: Baudot to ASCII, Ascii to Baudot
Features: Diagnostics
Price: $2,000
Distribution Method: End user
Number Installed to Date: Under 100
Date First Installed: 1983
(See Vendor Profile Page V-22)

PERIPHERAL TECHNOLOGY, INC.
SCAT
Conversion Function: Interface Conversion, Code Conversion, Protocol Conversion, Speed Conversion, Emulator
Number of Ports Supported: 25
Transmission Mode: Half-Duplex, Full-Duplex

Converters/Emulators

Standard Transmission Rate: Asynchronous/Synchronous - 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,800 bps, 9,600 bps
Code Conversion: Ascii to Ebcdic
Interface Conversion: RS-232C to RS-422
Mode Conversion: Half-Duplex to Full-Duplex, Full-Duplex to Half-Duplex
Protocol Conversion: Ascii to BSC, Ascii to SNA
Features: Concentration, Data Compression, Diagnostics, Polling, Automatic Data Rate Detection, Automatic Parity Recognition, Autoanswer, Password Protection
Price: $695
Distribution Method: OEM
Number Installed to Date: 100 - 600
Date First Installed: 1982
(See Vendor Profile Page V-23)

PERIPHERAL TECHNOLOGY, INC.
SCAT 1
Conversion Function: Protocol Conversion
Number of Ports Supported: 1
Transmission Mode: Half-Duplex, Full-Duplex
Standard Transmission Rate: Asynchronous/Synchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,800 bps, 9,600 bps
Code Conversion: Ascii to Ebcdic, Ebcdic to Ascii
Protocol Conversion: Ascii to Bisynchronous, Ascii to SNA
Features: Data Compression, Diagnostics, Automatic Data Rate Detection, Automatic Parity Recognition
Price: $795
Distribution Method: Third-party
Number Installed to Date: Under 100
Date First Installed: September 1981

PERIPHERAL TECHNOLOGY, INC.
SCAT 2 2101
Conversion Function: Protocol Conversion
Number of Ports Supported: 1
Transmission Mode: Half-Duplex, Full-Duplex
Standard Transmission Rate: Asynchronous/Synchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 9,800 bps, 4,800 bps, 7,800 bps, 9,600 bps
Code Conversion: Ascii to Ebcdic, Ebcdic to Ascii
Protocol Conversion: Ascii to Blanc, Ascii to SNA
Features: Data Compression, Diagnostics, Automatic Data Rate Detection, Automatic Parity Recognition
Price: $995
Distribution Method: Third-party
Number Installed to Date: Under 100
Date First Installed: January 1982

PERIPHERAL TECHNOLOGY, INC.
SCAT 2 2300
Conversion Function: Protocol Conversion
Number of Ports Supported: 9
Transmission Mode: Half-Duplex, Full-Duplex
Standard Transmission Rate: Asynchronous/Synchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,800 bps, 1,800 bps, 2,400 bps, 9,800 bps, 4,800 bps, 7,200 bps, 9,600 bps
Code Conversion: Ascii to Ebcdic, Ebcdic to Ascii
Protocol Conversion: Ascii to Bisynchronous, Ascii to SNA
Features: Concentration, Data Compression, Diagnostics, Automatic Data Rate Detection, Automatic Parity Recognition
Price: $2,295
Distribution Method: Third-party
Number Installed to Date: Under 100
Date First Installed: January 1982

PERIPHERAL TECHNOLOGY, INC.
SCAT 2 2301
Conversion Function: Protocol Conversion
Number of Ports Supported: 5
Transmission Mode: Half-Duplex, Full-Duplex
Standard Transmission Rate: Asynchronous/Synchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,800 bps, 4,800 bps, 7,800 bps, 9,600 bps
Code Conversion: Ascii to Ebcdic, Ebcdic to Ascii
Protocol Conversion: Ascii to Bisynchronous, Ascii to SNA
Features: Concentration, Data Compression, Diagnostics, Automatic Data Rate Detection, Automatic Parity Recognition
Price: $2,995
Distribution Method: Third-party
Number Installed to Date: 100 - 500
Date First Installed: January 1982

PERIPHONICS CORP.
T-COM8
Conversion Function: Interface Conversion, Code Conversion, Protocol Conversion, Speed Conversion, Emulator
Number of Ports Supported: 419
Transmission Mode: Half-Duplex
Standard Transmission Rate: Asynchronous/Synchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,800 bps, 4,200 bps, 7,800 bps, 9,800 bps, 19,800 bps
Code Conversion: Ebcdic to Ascii, Ascii to Ebcdic
Interface Conversion: User Selectable
Mode Conversion: From Half-Duplex to Full-Duplex
Protocol Conversion: User Selectable
Features: Concentration, Data Compression, Diagnostics, Polling, Automatic Parity Recognition, Autoanswer, Autodial
Distribution Method: End user
Number Installed to Date: Under 100
Date First Installed: January 1974
(See Vendor Profile Page V-23)

PERSONAL MICROCOMPUTERS
MICRO-SET
Conversion Function: CP/M Conversion
Number of Ports Supported: 2
Transmission Mode: Full-Duplex
Standard Transmission Rate: Asynchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,800 bps, 1,200 bps, 2,400 bps, 3,800 bps, 4,800 bps, 7,200 bps, 9,800 bps, 19,800 bps
Price: $995
Distribution Method: End user, OEM
Number Installed to Date: 500 - 1,000
Date First Installed: April 1983
(See Vendor Profile Page V-23)

PHOENIX DIGITAL CORP.
DPAC-30
Conversion Function: Interface Conversion, Protocol Conversion, Speed Conversion, Emulator, Protocol to Protocol
Number of Ports Supported: 16
Transmission Mode: Half-Duplex, Full-Duplex
Standard Transmission Rate: Asynchronous/Synchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,800 bps, 4,200 bps, 7,200 bps, 9,800 bps, 19,200 bps
Code Conversion: Asynchronous/Bisynchronous to Modicon, GE to Modicon, GE to Asynchronous/Bisynchronous
Mode Conversion: Half-Duplex to Full-Duplex, Full-Duplex to Half-Duplex
Features: Concentration, Data Compression, Diagnostics, Polling, Automatic Data Rate Detection, Automatic Parity Recognition, Autoanswer
Price: $8,000
Monthly Maintenance Fee: $35
Distribution Method: OEM
Number Installed to Date: Under 100
Date First Installed: February 1980
(See Vendor Profile Page V-23)

PHOENIX 1, INC.
CLEO 3276
Conversion Function: Code Conversion, Protocol Conversion, Speed Conversion, Emulator
Number of Ports Supported: 9
Transmission Mode: Half-Duplex
Standard Transmission Rate: Asynchronous/Synchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,800 bps, 1,800 bps, 2,400 bps, 3,800 bps, 4,800 bps, 7,200 bps, 9,200 bps, 19,200 bps
Code Conversion: Ebcdic to Ascii
Interface Conversion: RS-232C to RS-232C
Mode Conversion: Half-Duplex to Full-Duplex
Protocol Conversion: 3276/2 to Full-Duplex Ascii
Features: Diagnostics, Autoanswer
Price: $3,095
Distribution Method: End user
Number Installed to Date: 100 - 600
Date First Installed: 1981
(See Vendor Profile Page V-24)

PHOENIX 1, INC.
CLEO 3270 H
Conversion Function: Protocol Conversion
Number of Ports Supported: 9
Transmission Mode: Half-Duplex
Standard Transmission Rate: Synchronous - 1,200 bps, 1,800 bps, 2,400 bps, 3,800 bps, 4,800 bps, 7,200 bps, 9,800 bps
Code Conversion: Ebcdic to Ascii
Interface Conversion: RS-232 to RS-232
Mode Conversion: Straight Half-Duplex
Protocol Conversion: 3270/2 to Ascii
Price: $3,995
Distribution Method: End user, OEM
Number Installed to Date: Under 100
Date First Installed: December 1981

PHOENIX 1, INC.
CLEO 3276 HF
Conversion Function: Protocol Conversion
Number of Ports Supported: 9
Transmission Mode: Half-Duplex
Standard Transmission Rate: Synchronous - 1,200 bps, 1,800 bps, 2,400 bps, 3,800 bps, 4,800 bps, 7,200 bps, 9,200 bps
Code Conversion: Ebcdic to Ascii
Interface Conversion: RS-232 to RS-232
Mode Conversion: Straight Half-Duplex
Protocol Conversion: 3271/12 to Ascii
Price: $3,995
Distribution Method: End user, OEM
Number Installed to Date: Under 100
Date First Installed: January 1983

PROGRESSIVE SYSTEMS, INC.
CLC MODELS 2/4
Conversion Function: Protocol Conversion
Number of Ports Supported: 14
Standard Transmission Rate: Asynchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,800 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,800 bps, 19,200 bps
Code Conversion: Baudot to Ascii, Ascii to Baudot, Ebcdic to Ascii
Protocol Conversion: Telex to Ascii, TWX to Ascii, DDP to Ascii
Features: Data Compression, Diagnostics, Automatic Parity Recognition, Autoanswer, for Tandem and IBM Computer

Price: $3,500 to $15,000
Distribution Method: End user
Number Installed to Date: Under 100
Date First Installed: January 1978
(See Vendor Profile Page V-24)

PROGRESSIVE SYSTEMS, INC.
CLC MODEL 8
Conversion Function: Protocol Conversion
Number of Ports Supported: 20
Transmission Mode: Half-Duplex
Standard Transmission Rate: Asynchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps, 19,200 bps
Code Conversion: Baudot to Ascii, Ascii to Baudot, Ebcdic to Ascii
Protocol Conversion: Telex to Ascii, TWX to Ascii, DDP to Ascii
Features: Concentration, Data Compression, Diagnostics, Automatic Parity Recognition, Autoanswer for Tandem Computers
Price: $4,000 to $16,000
Distribution Method: End user
Number Installed to Date: Under 100
Date First Installed: January 1984

PROTOCOL COMPUTERS, INC.
71B/SNA
Conversion Function: Protocol Conversion
Number of Ports Supported: 8
Transmission Mode: Full-Duplex
Standard Transmission Rate: Synchronous - 300 bps, 1,200 bps, 2,400 bps, 4,800 bps, 9,600 bps
Protocol Conversion: BSC 3271 to SNA/SDLC 3274
Features: Polling
Price: $3,100 to $7,000
Monthly Maintenance Fee: $35
Distribution Method: End user, OEM, Third-party
Number Installed to Date: Under 100
Date First Installed: January 1983
(See Vendor Profile Page V-24)

PROTOCOL COMPUTERS, INC.
726X
Conversion Function: Protocol Conversion
Number of Ports Supported: 3
Transmission Mode: Full-Duplex
Standard Transmission Rate: Asynchronous - 300 bps; Asynchronous/Synchronous - 1,200 bps; 2,400 bps, 4,800 bps, 9,600 bps
Protocol Conversion: X.25 to SDLC
Features: Diagnostics, Polling
Monthly Maintenance Fee: $55
Distribution Method: End user, OEM, Third-party
Number Installed to Date: Under 100
Date First Installed: April 1983

PROTOCOL COMPUTERS, INC.
74D
Conversion Function: Protocol Conversion
Number of Ports Supported: 9
Transmission Mode: Full-Duplex
Standard Transmission Rate: Asynchronous - 300 bps; Asynchronous/Synchronous - 1,200 bps, 2,400 bps, 4,800 bps, 9,600 bps
Code Conversion: Ebcdic to Ascii
Protocol Conversion: SNA/SDLC to Ascii
Features: Polling, Autoanswer
Price: $5,200
Monthly Maintenance Fee: $35
Distribution Method: End user, OEM, Third-party
Number Installed to Date: Under 100
Date First Installed: October 1983

PROTOCOL COMPUTERS, INC.
76B/SNA
Conversion Function: Protocol Conversion
Number of Ports Supported: 8
Transmission Mode: Full-Duplex
Standard Transmission Rate: Synchronous - 1,200 bps, 2,400 bps, 4,800 bps, 9,600 bps
Protocol Conversion: 3270 BSC to 3276 SNA/SDLC
Features: Polling
Price: $3,100 to $7,000
Monthly Maintenance Fee: $35
Distribution Method: End user, OEM, Third-party
Number Installed to Date: Under 100
Date First Installed: December 1983

PROTOCOL COMPUTERS, INC.
1051 CONVERTER
Conversion Function: Protocol Conversion
Number of Ports Supported: 7
Transmission Mode: Full-Duplex

Let MTI connect you to the low-cost ASCII world with protocol converters from PCI (and let your PC talk with your mainframe, too).

PCI protocol converters allow IBM users to expand their networks using ASCII terminals and printers with complete compatibility, high performance and at lower cost than with expensive SNA/SDLC equipment. The PCI 1076 lets any PC talk to an IBM mainframe.

MTI is an authorized distributor of PCI protocol converters as well as the most desirable ASCII terminals and printers. And MTI field sales engineers provide on-site consultation to show you how to design the most cost-effective terminal system.

Whether you buy, rent or lease, you'll find MTI is the one source for all the terminals, peripherals, systems, applications expertise and service you'll ever need. At good prices. Call MTI today and save.

New York: 516/621-6200, 212/767-0677, 518/449-5959
Outside N.Y.S.: 800/645-6530
New Jersey: 201/227-5552
Ohio: 216/464-6688

mti

Applications Specialists & Distributors, New York, New Jersey and Ohio. DEC, Intel, Texas Instruments, Dataproducts, Lear Siegler, Diablo, Esprit, Intecolor, Racal-Vadic, MICOM, Ventel, Develcon, Dig. Eng., U.S.Design Cipher, Protocol Computers, MicroPro, Microsoft, Polygon and Select.

Converters/Emulators

Standard Transmission Rate: Asynchronous - 300 bps; Asynchronous/Synchronous - 1,200 bps, 2,400 bps, 4,800 bps; 9,600 bps
Protocol Conversion: SNA/SDLC to Ascii
Features: Diagnostics, Polling, Automatic Data Rate Detection, Automatic Parity Recognition
Price: $3,100 to $7,000
Monthly Maintenance Fee: $30
Distribution Method: End user, OEM, Third-party
Number Installed to Date: 100 - 500
Date First Installed: November 1982

PROTOCOL COMPUTERS, INC.
1667 CONVERTER
Conversion Function: Protocol Conversion
Number of Ports Supported: 7
Transmission Mode: Full-Duplex
Standard Transmission Rate: Asynchronous - 300 bps, Asynchronous/Synchronous - 1,200 bps, 2,400 bps, 4,800 bps, 9,600 bps
Protocol Conversion: Ascii to SNA/SDLC (PU1)
Features: Polling, Automatic Data Rate Detection
Price: $3,100 to $7,000
Monthly Maintenance Fee: $30
Distribution Method: End user, OEM, Third-party
Number Installed to Date: 100 - 500
Date First Installed: September 1979

PROTOCOL COMPUTERS, INC.
1671 CONVERTER
Conversion Function: Protocol Conversion
Number of Ports Supported: 7
Transmission Mode: Full-Duplex
Standard Transmission Rate: Asynchronous - 300 bps; Asynchronous/Synchronous - 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps
Protocol Conversion: Ascii to 3270 BSC
Features: Polling, Automatic Data Rate Detection
Price: $3,100 to $7,000
Monthly Maintenance Fee: $30
Distribution Method: End user, OEM, Third-party
Number Installed to Date: 100 - 300
Date First Installed: August 1982

PROTOCOL COMPUTERS, INC.
1676 CONVERTER
Conversion Function: Protocol Conversion, Emulator
Number of Ports Supported: 9
Transmission Mode: Full-Duplex
Standard Transmission Rate: Asynchronous - 300 bps; Asynchronous/Synchronous - 1,200 bps, 2,400 bps, 4,800 bps, 9,600 bps
Code Conversion: Ebcdic to Ascii
Protocol Conversion: Ascii to SNA/SDLC 3274-6
Features: Diagnostics, Polling, Automatic Data Rate Detection, Autosenser
Price: $3,100 to $7,000
Monthly Maintenance Fee: $30
Distribution Method: End user, OEM, Third-party
Number Installed to Date: 600 - 1,000
Date First Installed: September 1980

PROTOCOL COMPUTERS, INC.
1676X CONVERTER
Conversion Function: Protocol Conversion, Emulator
Number of Ports Supported: 7
Standard Transmission Rate: Asynchronous - 300 bps; Asynchronous/Synchronous - 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps
Protocol Conversion: Ascii to 3270 SNA/SDLC
Features: Diagnostics, Polling, Automatic Data Rate Detection
Price: $4,800 to $6,500
Monthly Maintenance Fee: $30
Distribution Method: End user, OEM, Third-party
Number Installed to Date: Under 100
Date First Installed: April 1983

PROTOCOL COMPUTERS, INC.
3780/SNA
Conversion Function: Protocol Conversion
Number of Ports Supported: 1
Transmission Mode: Full-Duplex
Standard Transmission Rate: Asynchronous - 300 bps, Asynchronous/Synchronous - 1,200 bps, 2,400 bps, 4,800 bps, 9,600 bps
Protocol Conversion: 3780 BSC to 3776/2 SNA/SDLC
Features: Polling
Price: $3,100 to $7,000
Monthly Maintenance Fee: $50
Distribution Method: End user, OEM, Third-party
Number Installed to Date: Under 100
Date First Installed: September 1983

PROTOCOL COMPUTERS, INC.
PCI SERIES
Conversion Function: Code Conversion, Protocol Conversion, Emulator
Number of Ports Supported: 9
Transmission Mode: Full-Duplex
Standard Transmission Rate: Asynchronous - 300 bps; Asynchronous/Synchronous - 1,200 bps, 2,400 bps, 4,800 bps, 9,600 bps
Code Conversion: Ascii/BSC 3270 to Ascii/SNA 3767, Ascii/SNA 3270 to 3780/SNA 3770, Ascii/SNA 5251 to 3270 BSC/SNA
Protocol Conversion: Asc/EBS 3270 to Ascii/SNA 3767, Ascii/SNA 3270 to 3780, Ascii/SNA 5251 to 3270 BSC/SNA
Features: Concentration, Diagnostics, Polling, Automatic Data Rate Detection, Autosenser, Dynamic Printer Assignment
Price: $1,850 to $8,500
Monthly Maintenance Fee: $40
Distribution Method: End user, OEM, Third-party
Number Installed to Date: 500 - 1,000
Date First Installed: August 1980

PROTOCOL COMPUTERS, INC.
R738X CONVERTER
Conversion Function: Protocol Conversion
Number of Ports Supported: 5
Standard Transmission Rate: Asynchronous - 300 bps; Asynchronous/Synchronous - 1,200 bps, 2,400 bps, 4,800 bps, 9,600 bps
Protocol Conversion: SDLC to X.25
Features: Diagnostics, Polling
Price: $5,500
Monthly Maintenance Fee: $55
Distribution Method: End user, OEM, Third-party
Number Installed to Date: Under 100
Date First Installed: December 1983

PROTOCOL COMPUTERS, INC.
VIDROTEX 67
Conversion Function: Protocol Conversion
Number of Ports Supported: 7
Transmission Mode: Full-Duplex
Standard Transmission Rate: Asynchronous - 75 bps, 300 bps, Asynchronous/Synchronous - 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps
Protocol Conversion: Ascii to SNA/SDLC
Features: Polling
Price: $3,100 to $7,000
Monthly Maintenance Fee: $33
Distribution Method: End user, OEM, Third-party
Number Installed to Date: Under 100

QUASITRONICS, INC.
SQ1
Conversion Function: Protocol Conversion
Number of Ports Supported: 1
Transmission Mode: Full-Duplex
Standard Transmission Rate: Asynchronous - 110 bps, 300 bps, 600 bps; 1,200 bps, 1,800 bps, 2,400 bps; 3,800 bps, 4,800 bps, 7,200 bps, 9,600 bps
Code Conversion: Ascii to Digital Command
Protocol Conversion: Serial to Qume
Features: Diagnostics, Automatic Parity Recognition, Autosenser
Distribution Method: End user
Number Installed to Date: Under 100
Date First Installed: January 1984
(See Vendor Profile Page V-24)

QUASITRONICS, INC.
ST1
Conversion Function: Protocol Conversion
Number of Ports Supported: 1
Standard Transmission Rate: Asynchronous - 110 bps; 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,800 bps, 4,800 bps, 7,200 bps, 9,600 bps
Code Conversion: Ascii to Digital Command
Protocol Conversion: Serial to Parallel
Features: Diagnostics, Automatic Parity Recognition, Autosenser
Price: $300 to $400
Distribution Method: End user
Number Installed to Date: 500 - 1,000
Date First Installed: June 1981

RACAL-TELESYSTEMS, INC.
368 NETWORKING TRANSLATOR
Conversion Function: Protocol Conversion
Number of Ports Supported: 2
Transmission Mode: Half-Duplex, Full-Duplex
Standard Transmission Rate: Asynchronous - 50 bps, 75 bps; 110 bps, 300 bps, 600 bps, 1,800 bps; 1,800 bps, 2,400 bps, 3,800 bps, 4,800 bps
Protocol Conversion: Word Processor to Word Processor
Features: Diagnostics, Automatic Data Rate Detection, Automatic Parity Recognition
Price: $2,695
Monthly Maintenance Fee: $33
Distribution Method: End user
Number Installed to Date: 100 - 300
Date First Installed: February 1983
(See Vendor Profile Page V-25)

RACAL-TELESYSTEMS, INC.
464 CENTRAL SITE TRANSLATOR
Conversion Function: Protocol Conversion
Number of Ports Supported: 2
Transmission Mode: Half-Duplex, Full-Duplex
Standard Transmission Rate: Asynchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,800 bps, 1,800 bps, 2,400 bps, 3,800 bps, 4,800 bps
Protocol Conversion: Word Processor to Word Processor
Features: Diagnostics, Automatic Data Rate Detection, Automatic Parity Recognition
Price: $3,995
Monthly Maintenance Fee: $33
Distribution Method: End user
Number Installed to Date: 100 - 600
Date First Installed: February 1983

RAIMAN CORP.
MP-II
Conversion Function: Protocol Conversion
Transmission Mode: Half-Duplex, Full-Duplex
Features: Remote Batch
Price: $4,100 to $20,000
Monthly Maintenance Fee: $200
Distribution Method: End user
Number Installed to Date: Under 100
(See Vendor Profile Page V-25)

REMEX CORP.
TRANSLATOR-3270
Conversion Function: Protocol Conversion

Number of Ports Supported: 32
Transmission Mode: Half-Duplex, Full-Duplex
Standard Transmission Rate: Asynchronous - 50 bps, 75 bps, 110 bps, 300 bps, 1,800 bps, 3,600 bps, 7,200 bps; Asynchronous/Synchronous - 600 bps, 1,800 bps, 2,400 bps, 4,800 bps, 9,600 bps
Protocol Conversion: Ascii to 3270 SNA/SDLC, Ascii to 3270 BSC, Ascii to System/34, System/36, System/38
Features: Diagnostics, Automatic Data Rate Detection
Price: $3,600 to $15,000
Monthly Maintenance Fee: $67
Distribution Method: Third-party
Number Installed to Date: 500 - 1,000
Date First Installed: September 1980
(See Vendor Profile Page V-25)

SHAFFSTALL CORP.
MEDIACOM
Conversion Function: Protocol Conversion
Number of Ports Supported: 1
Transmission Mode: Half-Duplex, Full-Duplex
Standard Transmission Rate: Asynchronous/Synchronous - 50 bps, 75 bps, 110 bps, 300 bps, 500 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,800 bps, 9,600 bps
Code Conversion: Ascii to Ebcdic
Protocol Conversion: Asynchronous to Bisynchronous, Bisynchronous to Asynchronous
Features: Diagnostics, Autosenser
Price: $5,500
Distribution Method: End user
Number Installed to Date: 100 - 500
Date First Installed: June 1980
(See Vendor Profile Page V-26)

SHERWOOD DIGITAL ELECTRONICS
A/B-2, A/B-3
Conversion Function: Interface Conversion, Code Conversion, Protocol Conversion, Speed Conversion, Emulator
Number of Ports Supported: 1
Transmission Mode: Half-Duplex, Full-Duplex
Standard Transmission Rate: Asynchronous/Synchronous - 2,400 bps, 9,600 bps
Code Conversion: Ebcdic to Ascii, Ebcdic to Baudot, Ascii to Baudot
Interface Conversion: RS-232 to RS-232
Mode Conversion: Half-Duplex to Full-Duplex, Full-Duplex to Half-Duplex
Protocol Conversion: Bisynchronous Ebcdic to Ascii Asynchronous, Ebcdic Bisynchronous to Baudot-Telex
Features: Data Compression, Diagnostics, Polling, Autosenser
Price: $1,495 to $2,495
Distribution Method: Third-party
Number Installed to Date: 1,000 - 5,000
Date First Installed: March 1978
(See Vendor Profile Page V-26)

SHERWOOD DIGITAL ELECTRONICS
PC4, PC6
Conversion Function: Protocol Conversion
Number of Ports Supported: 2
Transmission Mode: Half-Duplex, Full-Duplex
Standard Transmission Rate: Asynchronous - 110 bps, 300 bps, 500 bps, 1,800 bps; Asynchronous/Synchronous - 1,800 bps; 2,400 bps, 4,800 bps, 9,600 bps
Code Conversion: Ebcdic to Baudot, Ascii to Ebcdic, Ascii to Baudot
Interface Conversion: IBM TWX-AX to RS-232
Protocol Conversion: SNA/SDLC TWX to Ascii-Asynchronous
Features: Diagnostics, Polling, Autosenser
Price: $1,495 to $2,495
Distribution Method: Third-party
Number Installed to Date: 500 - 1,000
Date First Installed: March 1978

STARNET DATA SYSTEMS
STARNET 9
Conversion Function: Interface Conversion, Code Conversion, Protocol Conversion, Speed Conversion, Disimilar Protocols.
Number of Ports Supported: 19
Transmission Mode: Half-Duplex, Full-Duplex
Standard Transmission Rate: Asynchronous/Synchronous - 19,200 bps
Code Conversion: Ascii to Binary, Ascii to Hex, Ascii to Ascii II
Interface Conversion: RS-232 to V.35
Mode Conversion: Half-Duplex to Full-Duplex, Full-Duplex to Half-Duplex
Protocol Conversion: INQ AK to DCI DC2, CTS RTS to DCI DC3, XON XOF to ENQ ANK
Features: Diagnostics, Autosenser, Modem Facility, Autodial, Autosenser
Price: $14,710
Distribution Method: End user
Number Installed to Date: Under 100
Date First Installed: 1981
(See Vendor Profile Page V-28)

STRATUS COMPUTER, INC.
STRATUS/32 CONTINUOUS PROCESSING SYSTEM
Conversion Function: Protocol Conversion, Speed Conversion
Number of Ports Supported: 32
Transmission Mode: Half-Duplex, Full-Duplex
Standard Transmission Rate: Asynchronous/Synchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,800 bps, 9,600 bps, 19,200 bps
Code Conversion: Ebcdic to Ascii, Ascii to Ebcdic
Interface Conversion: RS-232 to RS-422, RS-422 to RS-232
Features: Concentration, Data Compression, Diagnostics, Polling, Automatic Parity Recognition, Autosenser
Price: $140,000
Distribution Method: End user
Number Installed to Date: Under 100
Date First Installed: February 1982
(See Vendor Profile Page V-28)

SYNALTA SYSTEMS
DCIC 9
Conversion Function: Interface Conversion, Code Conversion, Protocol Conversion, Speed Conversion, Emulator
Number of Ports Supported: 3
Transmission Mode: Half-Duplex, Full-Duplex
Standard Transmission Rate: Asynchronous/Synchronous - 50 bps, 75 bps, 110 bps, 600 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps, 19,200 bps
Code Conversion: Ascii to Ebcdic, Ebcdic to Ascii
Interface Conversion: Serial to Parallel, Parallel to Serial
Mode Conversion: Half-Duplex to Full-Duplex, Full-Duplex to Half-Duplex
Protocol Conversion: BLC to HDLC, SDLC to BDLC
Features: Data Compression, Diagnostics, Polling, Automatic Data Rate Detection, Automatic Parity Recognition, Autosenser
Price: $495
Monthly Maintenance Fee: $25
Distribution Method: End user, OEM
Number Installed to Date: 100 - 500
Date First Installed: January 1983
(See Vendor Profile Page V-28)

SYNALTA SYSTEMS
STD SER 2
Conversion Function: Interface Conversion, Code Conversion, Protocol Conversion, Speed Conversion, Emulator
Number of Ports Supported: 3
Transmission Mode: Half-Duplex, Full-Duplex
Standard Transmission Rate: Asynchronous/Synchronous - 50 bps, 75 bps, 110 bps, 600 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,800 bps, 9,600 bps, 19,200 bps
Code Conversion: Ascii to Ebcdic, Ebcdic to Ascii
Interface Conversion: Serial to Parallel, Parallel to Serial
Mode Conversion: Half-Duplex to Full-Duplex, Full-Duplex to Half-Duplex
Protocol Conversion: BLC to HDLC, SDLC to BDLC
Features: Data Compression, Diagnostics, Polling, Automatic Data Rate Detection, Automatic Parity Recognition, Autosenser
Price: $495
Monthly Maintenance Fee: $25
Distribution Method: End user, OEM
Number Installed to Date: 100 - 500
Date First Installed: January 1983

TANDY CORP.
T 76
Conversion Function: Protocol Conversion
Number of Ports Supported: 7
Standard Transmission Rate: Synchronous - 9,600 bps
Code Conversion: Ebcdic to Ascii
Interface Conversion: RS-232C to RS-232C
Protocol Conversion: SNA/SDLC to Ascii 2
Features: Diagnostics, Automatic Data Rate Detection, Automatic Parity Recognition
Price: $7,000
Distribution Method: End user
Date First Installed: December 1981
(See Vendor Profile Page V-29)

TECHLAND SYSTEMS, INC.
BLUE LINK 3275/6 SWITCH
Conversion Function: Emulator
Number of Ports Supported: 1
Transmission Mode: Half-Duplex, Full-Duplex
Standard Transmission Rate: Asynchronous/Synchronous - 1,800 bps, 1,800 bps, 2,400 bps, Synchronous - 3,600 bps, 4,800 bps, 7,800 bps, 9,600 bps
Code Conversion: Ascii to Ebcdic, Ebcdic to Ascii
Features: Data Compression, Diagnostics, Polling, Automatic Data Rate Detection, Automatic Parity Recognition, Autosenser
Price: $690
Distribution Method: End user, OEM, Third-party
Number Installed to Date: 100 - 500
(See Vendor Profile Page V-29)

TECHLAND SYSTEMS, INC.
BLUE LINK 3270/SDLC
Conversion Function: Emulator
Number of Ports Supported: 1
Transmission Mode: Half-Duplex, Full-Duplex
Standard Transmission Rate: Asynchronous/Synchronous - 1,800 bps, 1,800 bps, 2,400 bps; 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps
Code Conversion: Ascii to Ebcdic, Ebcdic to Ascii
Features: Data Compression, Diagnostics, Polling, Automatic Data Rate Detection, Automatic Parity Recognition, Autosenser
Price: $690
Distribution Method: End user, OEM, Third-party
Number Installed to Date: 500 - 1,000
Date First Installed: November 1982

TECHLAND SYSTEMS, INC.
BLUE LINK 5251/12
Conversion Function: Emulator
Number of Ports Supported: 1
Standard Transmission Rate: Asynchronous/Synchronous - 1,200 bps, 1,800 bps, 2,400 bps, Synchronous - 3,600 bps, 4,800 bps,

7,200 bps, 9,600 bps
Code Conversion: Ascii to Ebcdic, Ebcdic to Ascii
Features: Data Compression, Diagnostics, Polling, Automatic Data Rate Detection, Automatic Parity Recognition, Autoanswer
Price: $990
Distribution Method: End user, OEM, Third-party
Number Installed to Date: 600 - 1,000
Date First Installed: November 1982

TECHLAND SYSTEMS, INC.
VTERM
Conversion Function: Emulator
Number of Ports Supported: 1
Transmission Mode: Half-Duplex, Full-Duplex
Standard Transmission Rate: Asynchronous/Synchronous - 1,200 bps, 1,800 bps, 2,400 bps, Synchronous - 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps
Code Conversion: Ascii to Ebcdic, Ebcdic to Ascii
Features: Data Compression, Diagnostics, Polling, Automatic Data Rate Detection, Automatic Parity Recognition, Autoanswer
Price: $160
Distribution Method: End user, OEM, Third-party
Number Installed to Date: 1,000 - 5,000
Date First Installed: October 1981

TEKTRONIX, INC.
634
Conversion Function: Emulator
Number of Ports Supported: 1
Transmission Mode: Half-Duplex, Full-Duplex
Standard Transmission Rate: Asynchronous/Synchronous - 75 bps, 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps
Mode Conversion: Half-Duplex to Full-Duplex, Full-Duplex to Half-Duplex
Protocol Conversion: BSC to X.25, SDLC, SNA
Features: Diagnostics, Polling, Protocol Simulation
Price: $175 to $3,000
Distribution Method: End user
Number Installed to Date: 600 - 1,000
Date First Installed: 1981
(See Vendor Profile Page V-30)

TELEBYTE TECHNOLOGIES, INC.
66
Conversion Function: Interface Conversion
Number of Ports Supported: 1
Transmission Mode: Full-Duplex
Standard Transmission Rate: Asynchronous/Synchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps, 19,200 bps, 20,000 bps
Interface Conversion: RS-232C to RS-449, RS-449 to RS-232C
Features: Automatic Data Rate Detection
Price: $115
Distribution Method: End user
Number Installed to Date: Under 100
Date First Installed: September 1981
(See Vendor Profile Page V-30)

TELEBYTE TECHNOLOGIES, INC.
64
Conversion Function: Interface Conversion
Number of Ports Supported: 1
Transmission Mode: Half-Duplex, Full-Duplex
Standard Transmission Rate: Asynchronous/Synchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps, 19,200 bps
Interface Conversion: RS-232C to Current Loop, Current Loop to RS-232C
Features: Automatic Data Rate Detection
Price: $80
Distribution Method: End user
Number Installed to Date: 100 - 500
Date First Installed: September 1982

TELEBYTE TECHNOLOGIES, INC.
66
Conversion Function: Interface Conversion
Number of Ports Supported: 1
Transmission Mode: Half-Duplex, Full-Duplex
Standard Transmission Rate: Asynchronous/Synchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,800 bps, 1,600 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,800 bps
Interface Conversion: RS-232C to Current Loop, Current Loop to RS-232C
Features: Automatic Data Rate Detection
Price: $100
Distribution Method: End user
Number Installed to Date: 500 - 1,000
Date First Installed: June 1983

TELEBYTE TECHNOLOGIES, INC.
76
Conversion Function: Interface Conversion
Number of Ports Supported: 2
Transmission Mode: Half-Duplex, Full-Duplex
Standard Transmission Rate: Asynchronous/Synchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,800 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,800 bps, 19,800 bps
Interface Conversion: RS-232C to Current Loop, Current Loop to RS-232C
Features: Diagnostics
Price: $196
Distribution Method: End user
Number Installed to Date: Under 100
Date First Installed: June 1983

TELEBYTE TECHNOLOGIES, INC.
SERIES 65
Conversion Function: Interface Conversion
Number of Ports Supported: 1
Transmission Mode: Full-Duplex, Control Signals
Standard Transmission Rate: Asynchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,800 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps, 19,200 bps, 100,000 bps
Interface Conversion: RS-232C to RS422, RS422 to RS-232C
Features: Automatic Data Rate Detection
Price: $99 to $126
Distribution Method: End user
Number Installed to Date: Under 100
Date First Installed: March 1983

TELESPACE CORP.
TELEX PLUS
Conversion Function: Code Conversion, Protocol Conversion, Speed Conversion
Number of Ports Supported: 2
Transmission Mode: Full-Duplex
Standard Transmission Rate: Asynchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,800 bps, 9,600 bps
Code Conversion: Ascii to Baudot, Baudot to Ascii
Features: Diagnostics, Autoanswer, Fall Back
Price: $1,385 to $1,870
Monthly Maintenance Fee: $24
Distribution Method: End user, OEM, Third-party
Number Installed to Date: Under 100
Date First Installed: September 1980
(See Vendor Profile Page V-30)

TELEPROCESSING PRODUCTS, INC.
TP-300/301
Number of Ports Supported: 1
Transmission Mode: Half-Duplex, Simplex
Standard Transmission Rate: Asynchronous/Synchronous - 75 bps, 110 bps, 300 bps, 600 bps, 1,800 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,800 bps, 9,600 bps, 19,200 bps
Protocol Conversion: Asynchronous to Synchronous, Synchronous to Asynchronous
Features: Diagnostics
Price: $295 to $395
Distribution Method: End user, Third-party
Number Installed to Date: 1,000 - 5,000
Date First Installed: January 1979
(See Vendor Profile Page V-30)

TELEPROCESSING PRODUCTS, INC.
TP-300M
Number of Ports Supported: 1
Transmission Mode: Half-Duplex, Simplex
Standard Transmission Rate: Asynchronous/Synchronous - 75 bps, 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,800 bps, 9,600 bps, 19,200 bps
Protocol Conversion: Asynchronous to Synchronous, Synchronous to Asynchronous
Features: Diagnostics, Automatic Parity Recognition, Autoanswer, Error Control
Price: $735
Distribution Method: End user, Third-party
Number Installed to Date: 100 - 500
Date First Installed: May 1981

TELEPROCESSING PRODUCTS, INC.
TP-380
Conversion Function: Interface Conversion
Number of Ports Supported: 1
Transmission Mode: Half-Duplex, Full-Duplex
Standard Transmission Rate: Asynchronous/Synchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps, 19,200 bps, 50,000
Interface Conversion: RS-232 to 20 mA Current Loop, 20 mA Current Loop to RS-232
Price: $450
Distribution Method: End user, Third-party
Number Installed to Date: 300 - 1,000
Date First Installed: 1980

TELEPROCESSING PRODUCTS, INC.
TP-390
Conversion Function: Interface Conversion
Number of Ports Supported: 1
Transmission Mode: Half-Duplex, Full-Duplex
Standard Transmission Rate: Asynchronous/Synchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,800 bps, 9,600 bps, 19,200 bps, 56,000 bps
Interface Conversion: RS-232 to V.35, V.35 to RS-232
Price: $450
Distribution Method: End user, Third-party
Number Installed to Date: 300 - 1,000

TELTONE CORP.
M-871 ACCESS CONTROLLER
Conversion Function: Protocol Conversion
Number of Ports Supported: 25
Transmission Mode: Half-Duplex
Standard Transmission Rate: Asynchronous/Synchronous - 300

bps, 1,200 bps, 2,400 bps; Synchronous - 600 bps, 4,800 bps, 9,600 bps
Code Conversion: Ascii to Ebcdic, Ebcdic to Ascii
Interface Conversion: RS-232C
Protocol Conversion: Ascii to SNA/SDLC, Ascii to BSC
Features: Diagnostics, Polling, Automatic Data Rate Detection, Automatic Parity Recognition
Distribution Method: End user
Number Installed to Date: Under 100
Date First Installed: October 1983
(See Vendor Profile Page V-30)

THOMAS ENGINEERING
MZ80
Conversion Function: Protocol Conversion
Number of Ports Supported: 32
Transmission Mode: Full-Duplex
Standard Transmission Rate: Asynchronous - 75 bps, 110 bps, 600 bps, 600 bps, 1,800 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,200 bps, 7,200 bps, 9,600 bps, 19,200 bps
Code Conversion: Ascii to Ebcdic, Ebcdic to Ascii
Protocol Conversion: Ascii to BSC, Ascii to SDLC, Ascii to VIP
Features: Concentration, Diagnostics, Polling, Automatic Data Rate Detection, Automatic Parity Recognition
Price: $5,000 to $12,000
Distribution Method: End user
Number Installed to Date: Under 100
Date First Installed: December 1981
(See Vendor Profile Page V-30)

TNW CORP.
TNW 232D
Conversion Function: Interface Conversion, Code Conversion
Number of Ports Supported: 2
Transmission Mode: Full-Duplex
Standard Transmission Rate: Asynchronous - 50 bps, 75 bps, 110 bps, 600 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,200 bps, 7,200 bps, 9,600 bps
Code Conversion: Commodore Ascii to Ascii
Interface Conversion: IEEE/488 to RS-232, RS-232 to IEEE/488
Price: $369
Distribution Method: Third-party
Number Installed to Date: 100 - 500
Date First Installed: 1979
(See Vendor Profile Page V-31)

TNW CORP.
TNW 1000
Conversion Function: Interface Conversion, Code Conversion
Number of Ports Supported: 1
Transmission Mode: Full-Duplex
Standard Transmission Rate: Asynchronous - 50 bps, 75 bps, 110 bps, 600 bps, 600 bps, 1,200 bps, 1,200 bps, 2,400 bps, 3,600 bps, 4,200 bps, 7,200 bps, 9,600 bps
Code Conversion: Commodore Ascii to Ascii
Interface Conversion: IEEE/488 to RS-232
Price: $129
Distribution Method: Third-party
Number Installed to Date: 600 - 1,000
Date First Installed: 1980

TNW CORP.
TRW 2000
Conversion Function: Interface Conversion, Code Conversion
Number of Ports Supported: 1
Transmission Mode: Full-Duplex
Standard Transmission Rate: Asynchronous - 50 bps, 75 bps, 110 bps, 600 bps, 600 bps, 1,800 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps
Code Conversion: Commodore Ascii to Ascii
Interface Conversion: IEEE/488 to RS-232, RS-232 to IEEE/488
Price: $229
Distribution Method: Third-party
Number Installed to Date: 600 - 1,000
Date First Installed: 1981

TRENDATA STANDARD MEMORIES CORP.
TCA/2
Conversion Function: Protocol Conversion
Number of Ports Supported: 8
Transmission Mode: Half-Duplex, Full-Duplex
Standard Transmission Rate: Asynchronous/Synchronous - 50 bps, 75 bps, 110 bps, 600 bps, 600 bps, 1,800 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,200 bps, 7,200 bps, 9,600 bps
Code Conversion: Ascii to BSE
Protocol Conversion: RS-232 to IBM
Price: $5,000
Distribution Method: End user
Number Installed to Date: 600 - 1,000
(See Vendor Profile Page V-31)

TRI-DATA
NETWAY COMMUNICATIONS PROCESSOR
Conversion Function: Interface Conversion, Code Conversion, Protocol Conversion, Speed Conversion, Emulator
Number of Ports Supported: 32
Transmission Mode: Half-Duplex, Full-Duplex
Standard Transmission Rate: Asynchronous/Synchronous - 50 bps, 75 bps, 110 bps, 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps, 19,200 bps, 56,000 bps
Protocol Conversion: 3270 SNA to Asynchronous Ascii, SDLC to Asynchronous Ascii, 3270 Bisynchronous to Asynchronous Ascii
Features: Concentration, Data Compression, Diagnostics, Polling, Automatic Data Rate Detection, Automatic Parity Recognition, Autosenewer
Price: $11,000
Distribution Method: End user, OEM, Third-party
Number Installed to Date: Under 100
Date First Installed: March 1983
(See Vendor Profile Page V-31)

VIA WEST, INC.
CST 100
Conversion Function: Interface Conversion
Number of Ports Supported: 1
Standard Transmission Rate: Asynchronous - 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps, 19,200 bps
Interface Conversion: RS-232 to Centronics Parallel
Price: $150
Distribution Method: OEM
Number Installed to Date: 600 - 1,000
(See Vendor Profile Page V-32)

VIA WEST, INC.
PSI 100
Conversion Function: Interface Conversion
Number of Ports Supported: 1
Standard Transmission Rate: Asynchronous - 600 bps, 600 bps, 1,200 bps, 1,200 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps, 19,200 bps
Interface Conversion: Centronics Parallel to RS-232
Price: $200
Distribution Method: OEM
Number Installed to Date: Under 100

VIA WEST, INC.
VST 2000
Conversion Function: Interface Conversion
Number of Ports Supported: 1
Standard Transmission Rate: Asynchronous - 300 bps, 600 bps, 1,200 bps, 1,800 bps, 2,400 bps, 3,600 bps, 4,200 bps, 7,200 bps, 9,600 bps, 19,800 bps
Interface Conversion: RS-232 to Centronics Parallel
Features: Diagnostics
Price: $195
Distribution Method: OEM
Number Installed to Date: 9,000 - 10,000

WESTERN DATACOM
DATACOM 1000
Conversion Function: Interface Conversion, Code Conversion, Protocol Conversion, Speed Conversion, Emulator
Number of Ports Supported: 4
Transmission Mode: Full-Duplex
Standard Transmission Rate: Asynchronous - 110 bps, 300 bps, 600 bps, 1,200 bps, 1,200 bps, 2,400 bps, 3,600 bps, 4,800 bps, 7,200 bps, 9,600 bps, 19,200 bps
Code Conversion: Ascii to Ebcdic, Ebcdic to Ascii
Interface Conversion: Software Flow Center to Hardware Flow Center
Protocol Conversion: Any Asynchronous to Other Asynchronous
Features: Diagnostics, Autosenewer, Dual-Speed Modems
Price: $2,000
Monthly Maintenance Fee: $10
Distribution Method: Third-party
Number Installed to Date: Under 100
Date First Installed: November 1982
(See Vendor Profile Page V-30)

XYCOM, INC.
X-100
Conversion Function: Protocol Conversion
Number of Ports Supported: 5
Transmission Mode: Half-Duplex, Full-Duplex
Standard Transmission Rate: Synchronous - 2,400 bps
Code Conversion: Ascii to Ebcdic, Ebcdic to Ascii
Mode Conversion: Usually Half-Duplex, No Conversion
Protocol Conversion: Ascii to SNA/SDLC
Features: Diagnostics, Automatic Parity Recognition
Price: $1,150
Monthly Maintenance Fee: $13
Distribution Method: End user
Number Installed to Date: Under 100
(See Vendor Profile Page V-33)

COMMUNICATIONS PROCESSORS

Index to Communications Processors

Often referred to as front-end processors, these systems perform the communications management function between peripheral devices and the host computer. These tasks include line control of the communications circuits, interface control, message formatting and error checking, as well as other functions. The index has been arranged alphabetically by vendor and contains the unit price as well as the page number on which the complete listing can be found.

VENDOR	MODEL	PRICE	PAGE
AGC	IF-11/3780	$8,000	B-29
	IF-11/HDLC	$7,500 to $10,000	B-29
	IF-11Q/X.25	$9,500	B-29
	IF-11/X.25	$10,000	B-29
	IF-11/X.25 PLUS	$9,000 to $24,000	B-29
Access Telecommunications	UMC PROCESSOR BOARD	$3,900 to $12,000	B-29
	ACCESS 34-I	$6,000 to $25,000	B-29
	ACCESS 36-II	$6,000 to $25,000	B-29
	ACCESS 29	$6,000 to $25,000	B-29
Amdahl Corp.	4705	$60,000	B-29
	4705 E	$120,000	B-29
Amnet, Inc.	NUCLEUS 6000-PACKET SWITCH	$100,000	B-29
Anacom, Inc.	MODEL 8911A CHANNEL INTERFACE	$20,000	B-29
A. W. Computer Systems, Inc.	A.W. BRIDGE TECH	N/A	B-29
Datacom Corp.	PROFESSIONAL COMM MANAGER-2000	$1,300 to $2,500	B-29
Broadband Systems, Inc.	PS-1100	$3,300	B-29
Burroughs Corp.	B974	N/A	B-29
	CP3680	$64,050 to $124,950	B-29
	CP9582	$27,000 to $44,000	B-27
	NSP/LSP	N/A	B-27
Century Analysis, Inc.	OSI	$11,000	B-27
Dil Corp.	CCP/3205	$32,000 to $250,000	B-27
Codex Corp.	CODEX 6520 FEP	$45,000	B-27
Commar, Ltd.	CMC-4	$13,005 to $190,050	B-27
	CMC-32	$35,000 to $65,000	B-27
	DNP-4I	$30,000 to $60,000	B-27
	DNP-6I	$50,000 to $107,000	B-28
	DNP-16I	$75,000 to $250,000	B-28
Comnetics, Inc.	TERMINAL CONCENTRATOR: MDS-8070	$4,000 to $20,000	B-28
Computer Communications, Inc.	CC-6	$26,000 to $50,000	B-28
	CC-8	$50,000 to $100,000	B-28
	CC-80	$200,000 to $500,000	B-28
	CC-85	$200,000 to $500,000	B-28
Computer Identics Corp.	LDP-5	$30,000	B-29
Computer Systems	CP/85	$2,900 to $10,000	B-29
Control Data Corp.	2551-3	$36,170	B-29
	2551-4	$47,863	B-29
Datagram Corp.	DM 1600B	$6,000 to $30,000	B-29
Dataprobe, Inc.	DR-10	$750	B-29
Datastream Communications, Inc.	774	$4,000 to $10,000	B-29
	776	$4,000 to $6,000	B-29
	874	$16,000	B-29
	MPC	$6,000 to $12,000	B-29
Daycom Corp.	DAYCOM	N/A	B-29
DCA/TAC	SYSTEM 335	N/A	B-29
	SYSTEM 355	N/A	B-29
Digital Equipment Corp.	ETHERNET COMMUNICATIONS SERVERS	N/A	B-29
Engineered Systems, Inc.	TCS/500	$15,000	B-29
Envox Systems, Inc.	ENVAX 600	$1,000 to $3,000	B-29
	TRANSACTION PROCESSOR	$4,000 to $20,000	B-31
Excelan	EXOS 101	$1,700	B-31
Gandalf Data, Inc.	PACX IV	N/A	B-31
Gateway Communications, Inc.	GATEWAY PROCESSOR	$1,580 to $4,500	B-31
GTE Telenet Communications Corp.	TP-3005 NETWORK INTERFACE PROCESSOR	$2,350	B-31
	TP3010-II NETWORK INTERFACE PROCESSOR	$7,500	B-31
Harris Corp.	HARRIS 1600	N/A	B-31
	HARRIS 8470	$3,500	B-31
	HARRIS 9240	N/A	B-31
Hazeltine Data Systems	Z-80	$1,000	B-32
Hazeltine Corp.	HK-68A	$3,295	B-32

Communications Processor Index

VENDOR	MODEL	PRICE	PAGE
Honeywell, Inc.	DATANET 8	$39,065	B-39
	DATANET 6661	$36,600	B-39
IBM Corp.	3704	$36,150	B-35
	3705-80 M81-M83	$36,300 to $55,940	B-39
	3705-II E1-L4	$49,270 to $300,610	B-39
	3725-1	$132,490 to $299,940	B-39
	3725-2	$72,240 to $95,240	B-39
Inet Corp.	25X SERIES	$3,000 to $25,000	B-39
Ikon Industrial Data Systems, Inc.	COMMUNICATIONS PROCESSOR 1	$3,000	B-39
Information Devices Corp.	SMART SYNC MODEM	$6,500	B-39
Integrated Design Engineering, Inc.	PORT-SAVER	$1,800	B-39
Intelligent Business Systems, Inc.	CSX 1024	$80,000	B-39
Intercon Research Corp.	INTERCON 100A	$1,250 to $4,995	B-39
Interlan, Inc.	NI1010 UNIBUS ETHERNET CTLR	$3,000	B-35
Intl Computrition Systems	QUADRITEK SERIES IDC	$995 to $2,495	B-39
ITT Telecom Products, Inc.	N640	N/A	B-39
JC Systems	LINK 81	N/A	B-39
Lanacom Systems, Inc.	CMC-4/8/32	$14,000 to $80,000	B-34
	DNP	$30,000 to $300,000	B-34
M/A-COM IDCC, Inc.	CP9000 SERIES II	$20,000 to $200,000	B-39
Memorex Corp.	1270 TCU	N/A	B-34
Micom Systems, Inc.	MICRO 800/X.25 CONCENTRATOR PAD	$2,050 to $4,800	B-35
Microcosm, Inc.	MCS-30	$25,000	B-39
Microdata Corp.	5750	$5,100	B-39
	NETWORK SYSTEM	$15,000 to $30,000	B-35
Modacom Plus, Inc.	BRITE ONE	$1,280	B-39
	SMRTE ONE	$3,600	B-35
Modular Computer Systems, Inc.	CL II/45	$80,000	B-39
	CL II/75	$150,000	B-39
Multitronics, Inc.	RDS 1600	$1,600	B-39
	SVR 700	$1,600	B-39
NCR Comten, Inc.	3650	N/A	B-35
	3670 M85	N/A	B-39
	3690	N/A	B-39
Nestar Data Communications, Inc.	TRANSACTION CONCENTRATOR	$4,500	B-35
Northern Telecom, Inc.	BMC	$17,000 to $125,000	B-39
	29X SERIES	N/A	B-39
	503	$10,000 to $30,000	B-37
	565	$15,000 to $90,000	B-37
	585	$50,000 to $200,000	B-37
Nu Data Corp.	720 COMMUNICATIONS PROCESSOR	$1,700	B-37
Paradyne Corp.	PIXNET	$25,000	B-37
	SYSTEM 8400	$30,000	B-37
Peripheonics Corp.	T-COMM	$50,000 to $120,000	B-37
Perygot, Inc.	DCP/88	$2,000	B-39
	PC/3270	$995	B-39
Philips Electronics Instruments, Inc.	FLEXPAC PAD	N/A	B-39
Phoenix Digital Corp.	DPAC-80/PC	$8,000 to $15,000	B-39
Processing Innovations, Inc.	SAM (SPEECH AIDED MODEM)	$1,595 to $10,000	B-35
Radian Corp.	UT-1 & UT-4	$39,500 to $100,000	B-39
	UT-2 & UT-3	$24,000 to $50,000	B-39
Rangan Corp.	ATTACHED PROCESSOR APS1	$9,500 to $28,000	B-39
Raytheon Co.	RAYNET I, II, III	$200,000 to $600,000	B-39
RCA Semiconductors Corp.	SAMSON	$24,900	B-39
Sidereal Corp.	MICRONET 8	$18,000 to $23,000	B-39
	MICRONET 8	$21,000 to $26,000	B-39
	MICRONET 12	$2,500	B-39
	MICRONET 20	$4,200	B-39
	MICRONET 25	$5,600	B-39
	MICRONET 404	$8,750 to $12,100	B-39
	THE MICRONET SWITCH (STORE/FORWARD MSG)	$65,000 to $65,000	B-39
Software Results Corp.	COMBOARD/HASP	$13,900 to $26,900	B-40
	COMBOARD/SNA	$18,000 to $32,600	B-40
	COMBOARD/3780	$9,800 to $21,600	B-40
Sperry Corp.	DISTRIBUTED COMMUNICATIONS PROCESSOR/10	$26,000 to $50,000	B-40
	DISTRIBUTED COMMUNICATIONS PROCESSOR/20	$47,000 to $100,000	B-40
	DISTRIBUTED COMM PROCESSOR/40	$103,000 to $995,999	B-40
Summa Four	MCX & PCX SERIES	N/A	B-40
Syscom, Inc.	STORE & FORWARD MESSAGE SWITCH	$50,000	B-40
Tandem Computers, Inc.	6100 COMMUNICATION SUBSYSTEM	$24,000 to $300,000	B-40
	INFOSAT	$53,000	B-41
Thomas Engineering	MZ-80	$5,000 to $12,000	B-41
TITN	68K30	$3,750	B-41
Tusk Electronics, Inc.	PEOPLE TO COMPUTER INTERFACE	N/A	B-41
Westerholm, Inc.	DATATALKER	$995	B-41
	DATATALKER 2	$995 to $995	B-41
Xyplex, Inc.	XP-LN64	$9,500	B-41
	XYPLEX SYSTEM	N/A	B-41

AGC
IF-11/3780
Processor Function: Front-End Processor
Compatibility Classification: 2780/3780
Word Length: 8 bit
Host Compatibility: DEC PDP-11
Maximum Number Input Lines: 2
Input Transmission Mode: Full-Duplex, Half-Duplex
Input Transmission Speeds:
Synchronous: 1,200 bps to 19,200 bps
Input Port Code Supported: Ebcdic
Protocols Supported: BSC
Maximum Output Lines: 1
Aggregate Transmission Rate: 1
Features: Protocol and Code Conversion
Price: $6,000
Distribution Method: End user
Number Installed to Date: 100 to 1,000
Date First Installed: March 1981
(See Vendor Profile Page V-1)

AGC
IF-11/HDLC
Processor Function: Front-End Processor
Word Length: 8 bit
Host Compatibility: DEC VAX, DEC PDP-11, DEC LSI-11
Maximum Number Input Lines: 1
Input Transmission Mode: Full-Duplex
Input Transmission Speeds:
Synchronous: 2,400 bps to 500,000 bps
Input Port Code Supported: Ascii
Protocols Supported: HDLC
Maximum Output Lines: 1
Aggregate Transmission Rate: 1
Features: Protocol and Code Conversion, Error Control, User Programmable
Price: $7,500 to $10,000
Distribution Method: OEM

AGC
IF-11Q/X.25
Processor Function: Front-End Processor
Compatibility Classification: X.25
Word Length: 8 bit
Host Compatibility: DEC LSI-11
Maximum Number Input Lines: 32
Input Transmission Mode: Full-Duplex
Input Transmission Speeds:
Synchronous: 56,000 bps
Input Port Code Supported: X.25
Protocols Supported: X.25
Maximum Output Lines: 1
Aggregate Transmission Rate: 1
Features: Protocol and Code Conversion, Error Control, Automatic Disconnect, Multiplexer/Demultiplexer
Price: $6,500
Distribution Method: End user

AGC
IF-11/X.25
Processor Function: Front-End Processor
Compatibility Classification: X.25
Word Length: 8 bit
Host Compatibility: DEC PDP-11, DEC VAX-11
Maximum Number Input Lines: 32
Input Transmission Mode: Full-Duplex
Input Transmission Speeds:
Synchronous: 56,000 bps
Input Port Code Supported: X.25
Protocols Supported: X.25
Maximum Output Lines: 1
Aggregate Transmission Rate: 1
Features: Protocol and Code Conversion, Error Control, Automatic Disconnect, Multiplexer/Demultiplexer
Price: $10,000
Distribution Method: End user
Number Installed to Date: 50 to 100

AGC
IF-11/X.25 PLUS
Processor Function: Front-End Processor
Compatibility Classification: X.25 PAD
Word Length: 8 bit
Host Compatibility: DEC PDP-11, DEC VAX-11
Maximum Number Input Lines: 32
Input Transmission Mode: Full-Duplex
Input Transmission Speeds:
Synchronous: 56,000 bps
Input Port Code Supported: X.25
Protocols Supported: X.25, Asynchronous (Start/Stop)
Maximum Output Lines: 1
Aggregate Transmission Rate: 1
Features: Protocol and Code Conversion, Error Control, Terminal-Initiated Applications Switching, Automatic Disconnect, Multiplexer/Demultiplexer, Processor-Initiated Dynamic Line Reconfiguration, Terminal Controller, Local Console (System Control Functions), User Programmable
Price: $8,000 to $24,000
Distribution Method: End user
Number Installed to Date: 1 to 10

AGC
UMC PROCESSOR BOARD
Processor Function: Front-End Processor
Compatibility Classification: Processor Board
Word Length: 8 bit
Host Compatibility: DEC VAX, DEC PDP
Maximum Number Input Lines: 64
Input Transmission Mode: Full-Duplex, Half-Duplex
Input Transmission Speeds:
Synchronous: 300 bps to 700 bps
Input Port Code Supported: Ebcdic, Ascii, X.25
Protocols Supported: BSC, ADCCP, HDLC, UDLC, X.25, Asynchronous (Start/Stop)
Maximum Output Lines: 1
Aggregate Transmission Rate: 1
Features: User Programmable
Price: $3,900 to $12,000
Distribution Method: End user
Number Installed to Date: 1,000 to 10,000
Date First Installed: September 1978

ACCESS
TELECOMMUNICATIONS
ACCESS 34-I
Processor Function: Front-End Processor
Compatibility Classification: Non-IBM (Specialty)
Word Length: 8 bit
Host Compatibility: IBM System/34
Peripherals Supported: CRT, Printer, Tape Drive, Disk Drive, Diagnostic/Test
Maximum Number Input Lines: 8
Input Transmission Mode: Half-Duplex
Input Transmission Speeds:
Asynchronous: 55 bps to 19,200 bps
Input Port Code Supported: Ascii
Protocols Supported: X.25, Asynchronous (Start/Stop)
Maximum Output Lines: 8
Aggregate Transmission Rate: 8
Aggregate Transmission Rate: 192 bps
Features: Protocol and Code Conversion, Error Control, Terminal-Initiated Applications Switching, Automatic Disconnect, Processor-Initiated Dynamic Line Reconfiguration, Terminal Controller, Local Console (System Control Functions), Automatic Polling, Autodial/Autoanswer Capabilities, Downline Loading of Remote Node
Price: $6,000 to $25,000
Monthly Maintenance Fee: $115
Distribution Method: End user
Number Installed to Date: 100 to 1,000
Date First Installed: January 1981
(See Vendor Profile Page V-1)

ACCESS
TELECOMMUNICATIONS
ACCESS 36-I
Processor Function: Front-End Processor
Compatibility Classification: Non-IBM (Specialty)
Word Length: 8 bit
Host Compatibility: IBM System/36
Peripherals Supported: CRT, Printer, Tape Drive, Disk Drive, Diagnostic/Test
Maximum Number Input Lines: 8
Input Transmission Mode: Half-Duplex
Input Transmission Speeds:
Asynchronous: 55 bps to 19,200 bps
Input Port Code Supported: Ascii
Protocols Supported: X.25, Asynchronous (Start/Stop)
Aggregate Transmission Rate: 8
Aggregate Transmission Rate: 192 bps
Features: Protocol and Code Conversion, Error Control, Terminal-Initiated Applications Switching, Automatic Disconnect, Processor-Initiated Dynamic Line Reconfiguration, Terminal Controller, Local Console (System Control Functions), Automatic Polling, Autodial/Autoanswer Capabilities, Downline Loading of Remote Node
Price: $6,000 to $25,000
Monthly Maintenance Fee: $115
Distribution Method: End user
Number Installed to Date: 100 to 1,000
Date First Installed: January 1981

ACCESS
TELECOMMUNICATIONS
ACCESS 38
Processor Function: Front-End Processor
Compatibility Classification: Non-IBM (Specialty)
Word Length: 8 bit
Host Compatibility: IBM System/38
Peripherals Supported: CRT, Printer, Tape Drive, Disk Drive, Diagnostic/Test
Maximum Number Input Lines: 8
Input Transmission Mode: Half-Duplex
Input Transmission Speeds:
Asynchronous: 55 bps to 19,200 bps
Input Port Code Supported: Ascii
Protocols Supported: X.25, Asynchronous (Start/Stop)
Maximum Output Lines: 8
Aggregate Transmission Rate: 8
Aggregate Transmission Rate: 192 bps
Features: Protocol and Code Conversion, Error Control, Terminal-Initiated Applications Switching, Automatic Disconnect, Processor-Initiated Dynamic Line Reconfiguration, Terminal Controller, Local Console (System Control Functions), Automatic Polling, Autodial/Autoanswer Capabilities, Downline Loading of Remote Node
Price: $6,000 to $25,000
Monthly Maintenance Fee: $115
Distribution Method: End user
Number Installed to Date: 100 to 1,000
Date First Installed: January 1981

AMDAHL CORP.
4705
Processor Function: Front-End Processor
Compatibility Classification: IBM 37XX
Word Length: 18 bit
Host Compatibility: Amdahl 470, Amdahl 580, IBM 370
Input Transmission Mode: Full-Duplex, Half-Duplex
Input Transmission Speeds:
Synchronous: 64,000 bps
Asynchronous: 9,600 bps
Input Port Code Supported: Ebcdic, Ascii, X.25, Baudot
Protocols Supported: BSC, SDLC, HDLC, X.25, Asynchronous (Start/Stop)
Maximum Output Lines: 4
Aggregate Transmission Rate: 4
Features: Protocol and Code Conversion, Error Control, Automatic Transmission Speed (Baud Rate) Detection, Terminal-Initiated Applications Switching, Automatic Disconnect, Multiplexer/Demultiplexer, Terminal Controller, Local Console (System Control Functions), Automatic Polling, User Programmable, On-Line Maintenance, Statistics Collection, Autodial/Autoanswer Capabilities,

Communications Processors

Downline Loading of Remote Node
Price: $60,000
Monthly Maintenance Fee: $320
Distribution Method: End user
Number Installed to Date: 100 to 1,000
Date First Installed: September 1980
(See Vendor Profile Page V-2)

AMDAHL CORP.
4705 E
Processor Function: Front-End Processor
Compatibility Classification: IBM 370X
Word Length: 16 bit
Host Compatibility: Amdahl 470, Amdahl 580, IBM 370
Maximum Number Input Lines: 352
Input Transmission Mode: Full-Duplex, Half-Duplex
Input Transmission Speeds:
Synchronous: 64,000 bps
Asynchronous: 9,600 bps
Input Port Code Supported: Ebcdic, Ascii, X.25, Baudot
Protocols Supported: BSC, SDLC, HDLC, X.25, Asynchronous (Start/Stop)
Maximum Output Lines: 4
Aggregate Transmission Rate: 4
Features: Protocol and Code Conversion, Error Control, Automatic Transmission Speed (Baud Rate) Detection, Automatic Disconnect, Multiplexer/Demultiplexer, Processor-Initiated Dynamic Line Reconfiguration, Terminal Controller, Automatic Polling, User Programmable, On-Line Maintenance, Statistics Collection, Autodial/Autoanswer Capabilities, Downline Loading of Remote Node
Price: $120,000
Monthly Maintenance Fee: $320
Distribution Method: End user
Number Installed to Date: 100 to 1,000
Date First Installed: September 1980

ARINET, INC.
NUCLEUS 6000-PACKET SWITCH
Processor Function: Front-End Processor, Message Switch, Remote-Line Concentrator, Host Independent, Distributed Processing Nodes
Compatibility Classification: X.25
Word Length: 16 bit
Peripherals Supported: CRT, Printer, Tape Drive, Disk Drive
Maximum Number Input Lines: 1,024
Input Transmission Mode: Full-Duplex
Input Transmission Speeds:
Synchronous: 150 bps to 64,000 bps
Input Port Code Supported: Ebcdic, Ascii, X.25, Baudot
Protocols Supported: X.25
Maximum Output Lines: 1,024
Aggregate Transmission Rate: 1,024
Aggregate Transmission Rate: 10,000 bps
Features: Protocol and Code Conversion, Error Control, Terminal Emulation, Automatic Transmission Speed (Baud Rate) Detection, Terminal-Initiated Applications Switching, Automatic Disconnect, Multiplexer/Demultiplexer, Processor-Initiated Dynamic Line Reconfiguration, Terminal Controller, Local Console (System Control Functions), Automatic Polling, On-Line Maintenance, Statistics Collection, Autodial/Autoanswer Capabilities, Downline Loading of Remote Node
Price: $100,000
Distribution Method: OEM
Date First Installed: 1980
(See Vendor Profile Page V-2)

AUSCOM, INC.
MODEL 9911A CHANNEL INTERFACE
Processor Function: Front-End Processor, Message Switch, Remote-Line Concentrator, Distributed Processing Nodes
Compatibility Classification: IBM, Mainframes, PCM
Word Length: 19 bit
Host Compatibility: IBM Mainframes
Peripherals Supported: CRT, Printer, Disk Drive, Diagnostic/Test, Graphics
Input Transmission Mode: Full-Duplex, Half-Duplex
Input Transmission Speeds:
Synchronous: 2,400 bps to 1,000,000 bps
Asynchronous: 50 bps to 38,400 bps
Input Port Code Supported: Ebcdic, Ascii, X.25, Parallel Binary Data, Baudot
Protocols Supported: BSC, SDLC, HDLC, SDLC, X.25, Asynchronous (Start/Stop)
Maximum Output Lines: 1
Aggregate Transmission Rate: 1
Features: Protocol and Code Conversion, Error Control, Terminal Emulation, Terminal Controller, Automatic Polling, User Programmable
Price: $20,000
Distribution Method: End user, OEM
Number Installed to Date: 100 to 1,000
Date First Installed: November 1980
(See Vendor Profile Page V-3)

A. W. COMPUTER SYSTEMS, INC.
A.W. BRIDGE TECH
Processor Function: Message Switch, Distributed Processing Nodes
Compatibility Classification: IBM Series/1
Word Length: 16 bit
Host Compatibility: IBM Series/1, DEC PDP-11
Peripherals Supported: CRT, Printer, Disk Drive, Diagnostic/Test
Input Transmission Mode: Full-Duplex
Input Transmission Speeds:
Synchronous: 1,200 bps to 9,600 bps
Input Port Code Supported: Ebcdic, Ascii, X.25, Parallel Binary Data
Protocols Supported: BSC, SDLC, HDLC, X.25, Asynchronous (Start/Stop)
Features: Protocol and Code Conversion, Error Control, Terminal Emulation, Automatic Transmission Speed (Baud Rate) Detection, Terminal-Initiated Applications Switching, Automatic Disconnect, Multiplexer/Demultiplexer, Terminal Controller, Local Console (System Control Functions), Automatic Polling, User Programmable, On-Line Maintenance, Statistics Collection, Autodial/Autoanswer Capabilities, Downline Loading of Remote Node
Distribution Method: End user
Number Installed to Date: 10 to 50
Date First Installed: 1973
(See Vendor Profile Page V-3)

BETACOM CORP.
PROFESSIONAL COMM MANAGER-3000
Processor Function: Front-End Processor
Compatibility Classification: Micro Processor
Word Length: 19 bit
Host Compatibility: IBM PC-XT, Televideo 910, 802, 800
Peripherals Supported: CRT, Printer
Maximum Number Input Lines: 2
Input Transmission Mode: Full-Duplex, Half-Duplex
Input Transmission Speeds:
Synchronous: 300 bps to 1,200 bps
Asynchronous: 1,200 bps
Input Port Code Supported: Ebcdic, Ascii
Protocols Supported: BSC, SDLC, Asynchronous (Start/Stop), TWX
Features: Protocol and Code Conversion, Error Control, Terminal Emulation, Automatic Disconnect, Processor-Initiated Dynamic Line Reconfiguration, Automatic Polling, User Programmable, Statistics Collection, Autodial/Autoanswer Capabilities, Downline Loading of Remote Node
Price: $1,300 to $2,500
Monthly Maintenance Fee: $13
Distribution Method: End user
Number Installed to Date: 100 to 1,000
(See Vendor Profile Page V-4)

BROADBAND SYSTEMS, INC.
PS-1100
Processor Function: Remote-Line Concentrator
Compatibility Classification: IBM 3250
Word Length: 32 bit
Host Compatibility: IBM 308X, IBM 43XX
Peripherals Supported: Graphics Terminals
Maximum Number Input Lines: 1
Input Transmission Mode: Half-Duplex
Input Transmission Speeds:
Synchronous: 2,400 bps to 2,000,000 bps
Input Port Code Supported: Ascii
Protocols Supported: SDLC
Aggregate Transmission Rate: 20,000 bps
Features: Error Control, Automatic Transmission Speed (Baud Rate) Detection, Automatic Disconnect, Multiplexer/Demultiplexer, Terminal Controller, Automatic Polling, User Programmable
Price: $3,300
Distribution Method: End user
Date First Installed: August 1981
(See Vendor Profile Page V-4)

BURROUGHS CORP.
B974
Processor Function: Front-End Processor
Compatibility Classification: Non-IBM (General Purpose)
Host Compatibility: Burroughs B2/3/4000
Maximum Number Input Lines: 32
Input Transmission Mode: Half-Duplex
Input Transmission Speeds:
Synchronous: 9,600 bps
Asynchronous: 19,200 bps
Input Port Code Supported: Ebcdic, Ascii
Aggregate Transmission Rate: 1
Features: Protocol and Code Conversion, Error Control, Terminal-Initiated Applications Switching, Automatic Disconnect, Terminal Controller, Automatic Polling, Statistics Collection, Autodial/Autoanswer Capabilities
Distribution Method: End user
Date First Installed: 1974
(See Vendor Profile Page V-4)

BURROUGHS CORP.
CP3000
Processor Function: Front-End Processor
Compatibility Classification: Non-IBM (General Purpose)
Host Compatibility: Burroughs B2/3/4000
Peripherals Supported: CRT, Disk Drive
Maximum Number Input Lines: 288
Input Transmission Mode: Full-Duplex, Half-Duplex
Input Transmission Speeds:
Synchronous: 9,600 bps
Asynchronous: 19,200 bps
Input Port Code Supported: Ebcdic, Ascii
Protocols Supported: BSC, SDLC, Asynchronous (Start/Stop)
Features: Protocol and Code Conversion, Error Control, Terminal Emulation, Terminal-Initiated Applications Switching, Automatic Disconnect, Processor-Initiated Dynamic Line Reconfiguration, Terminal Controller, Local Console (System Control Functions), Automatic Polling, On-Line Maintenance, Statistics Collection, Autodial/Autoanswer Capabilities, Downline Loading of Remote Node
Price: $84,050 to $124,950
Monthly Maintenance Fee: $535
Distribution Method: End user
Date First Installed: September 1981

BURROUGHS CORP.
CP9662
Processor Function: Front-End Processor, Message Switch, Remote-Line Concentrator, Host Independent, Distributed Processing Nodes
Compatibility Classification: Non-IBM (General Purpose)
Word Length: 8 bit
Host Compatibility: Burroughs
Peripherals Supported: CRT, Printer, Tape Drive, Disk Drive, Diagnostic/Test, Card Reader
Maximum Number Input Lines: 56
Input Transmission Mode: Full-Duplex, Half-Duplex
Input Transmission Speeds:
Synchronous: 9,600 bps
Asynchronous: 19,200 bps
Input Port Code Supported: Ebcdic, Ascii, X.25
Protocols Supported: BSC, SDLC, BDLC, X.25, Asynchronous (Start/Stop)
Features: Protocol and Code Conversion, Error Control, Terminal Emulation, Terminal-Initiated Applications Switching, Automatic Disconnect, Processor-Initiated Dynamic Line Reconfiguration, Terminal Controller, Local Console (System Control Functions), Automatic Polling, User Programmable, On-Line Maintenance, Statistics Collection, Autodial/Autoanswer Capabilities, Downline Loading of Remote Node
Price: $27,000 to $44,000
Distribution Method: End user
Date First Installed: June 1982

BURROUGHS CORP.
NSP/LSP
Processor Function: Front-End Processor
Compatibility Classification: Non-IBM (General Purpose)
Word Length: 48 bit
Host Compatibility: Burroughs B7900, B6900, B5900
Maximum Number Input Lines: 128
Input Transmission Mode: Full-Duplex, Half-Duplex
Input Transmission Speeds:
Synchronous: 2,000 bps to 56,000 bps
Asynchronous: 50 bps to 19,200 bps
Input Port Code Supported: Ebcdic, Ascii, X.25, Baudot
Protocols Supported: BSC, SDLC, HDLC, BDLC, X.25, Asynchronous (Start/Stop)
Aggregate Transmission Rate: 1
Features: Protocol and Code Conversion, Error Control, Terminal Emulation, Automatic Disconnect, Multiplexer/Demultiplexer, Processor-Initiated Dynamic Line Reconfiguration, Terminal Controller, Local Console (System Control Functions), Automatic Polling, User Programmable, Statistics Collection, Autodial/Autoanswer Capabilities
Monthly Maintenance Fee: $300
Distribution Method: End user
Number Installed to Date: 100 to 1,000
Date First Installed: January 1980

CENTURY ANALYSIS, INC.
CSI
Processor Function: Line Multiplexing
Compatibility Classification: NCR Criterion Series
Word Length: 16 bit
Host Compatibility: NCR Criterion
Peripherals Supported: CRT, Printer
Maximum Number Input Lines: 21
Input Transmission Mode: Full-Duplex
Input Transmission Speeds:
Asynchronous: 300 bps to 19,200 bps
Input Port Code Supported: Ascii
Protocols Supported: Asynchronous (Start/Stop)
Maximum Output Lines: 21
Aggregate Transmission Rate: 96 bps
Features: Protocol and Code Conversion, Error Control, Automatic Transmission Speed (Baud Rate) Detection, Terminal-Initiated Applications Switching, Automatic Disconnect, Terminal Controller, On-Line Maintenance, Statistics Collection, Autodial/Autoanswer Capabilities, Downline Loading of Remote Node
Price: $11,000
Distribution Method: End user
Number Installed to Date: 100 to 1,000
Date First Installed: June 1982
(See Vendor Profile Page V-5)

CNI CORP.
CCP/3206
Processor Function: Front-End Processor, Remote-Line Concentrator, Host Independent
Compatibility Classification: Sperry
Word Length: 32 bit
Host Compatibility: Sperry 1100
Peripherals Supported: CRT, Printer, Tape Drive, Disk Drive, Diagnostic/Test
Maximum Number Input Lines: 400
Input Transmission Mode: Full-Duplex, Half-Duplex
Input Transmission Speeds:
Synchronous: 1,200 bps to 50,000 bps
Asynchronous: 75 bps to 19,200 bps
Input Port Code Supported: Ebcdic, Ascii, X.25, Parallel Binary Data
Protocols Supported: BSC, SDLC, ADCCP, HDLC, UDLC, X.25, Asynchronous (Start/Stop), UnisCope
Maximum Output Lines: 400
Aggregate Transmission Rate: 2,000 bps
Features: Protocol and Code Conversion, Error Control, Terminal Emulation, Automatic Transmission Speed (Baud Rate) Detection, Terminal-Initiated Applications Switching, Automatic Disconnect, Multiplexer/Demultiplexer, Processor-Initiated Dynamic Line Reconfiguration, Local Console (System Control Functions), Automatic Polling, On-Line Maintenance, Statistics Collection, Autodial/Autoanswer Capabilities, Downline Loading of Remote Node
Price: $32,000 to $250,000
Distribution Method: Third-party
Number Installed to Date: 100 to 1,000
(See Vendor Profile Page V-5)

CODEX CORP.
CODEX 6030 FEP
Processor Function: Front-End Processor
Compatibility Classification: IBM 270X
Word Length: 16 bit
Host Compatibility: IBM Mainframes
Peripherals Supported: CRT, Printer, Tape Drive, Disk Drive
Maximum Number Input Lines: 240
Input Transmission Mode: Full-Duplex, Half-Duplex
Input Transmission Speeds:
Synchronous: 1,200 bps to 230,400 bps
Asynchronous: 50 bps to 9,600 bps
Input Port Code Supported: Ebcdic, Ascii, Baudot
Protocols Supported: BSC, Asynchronous (Start/Stop)
Maximum Output Lines: 4
Aggregate Transmission Rate: 16,000 bps
Features: Protocol and Code Conversion, Automatic Transmission Speed (Baud Rate) Detection, Terminal-Initiated Applications Switching, Processor-Initiated Dynamic Line Reconfiguration, Local Console (System Control Functions), Automatic Polling, Statistics Collection, Autodial/Autoanswer Capabilities, Multipoint Dynamic
Price: $45,000
Monthly Maintenance Fee: $450
Distribution Method: End user
Date First Installed: 1980
(See Vendor Profile Page V-5)

COMMEX, LTD.
CMC-4
Processor Function: Front-End Processor
Compatibility Classification: IBM 37XX
Word Length: 8 bit
Host Compatibility: IBM
Peripherals Supported: CRT, Printer
Maximum Number Input Lines: 4
Input Transmission Mode: Full-Duplex, Half-Duplex, Isochrono
Input Transmission Speeds:
Synchronous: 1,200 bps to 57,600 bps
Asynchronous: 75 bps to 9,600 bps
Input Port Code Supported: Ebcdic, Ascii, Baudot, PTTC
Protocols Supported: BSC, Asynchronous (Start/Stop), SDA2, TTY2, IBM Series/1
Maximum Output Lines: 1
Aggregate Transmission Rate: 576 bps
Features: Error Control, Automatic Transmission Speed (Baud Rate) Detection, Automatic Disconnect, Local Console (System Control Functions), Automatic Polling, On-Line Maintenance, Autodial/Autoanswer Capabilities, Hardware Configurable
Price: $13,005 to $190,050
Monthly Maintenance Fee: $80
Distribution Method: End user
Number Installed to Date: 100 to 1,000
Date First Installed: 1976
(See Vendor Profile Page V-5)

COMMEX, LTD.
CMC-32
Processor Function: Front-End Processor
Compatibility Classification: IBM 37XX
Word Length: 8 bit
Host Compatibility: IBM
Peripherals Supported: CRT, Printer
Maximum Number Input Lines: 32
Input Transmission Mode: Full-Duplex, Half-Duplex, Isochronou
Input Transmission Speeds:
Synchronous: 1,200 bps to 57,600 bps
Asynchronous: 75 bps to 9,600 bps
Input Port Code Supported: Ebcdic, Ascii, Baudot, PTTC
Protocols Supported: BSC, Asynchronous (Start/Stop), SDA2, TTY2, IBM Series/1
Maximum Output Lines: 1
Aggregate Transmission Rate: 576 bps
Features: Protocol and Code Conversion, Automatic Transmission Speed (Baud Rate) Detection, Automatic Disconnect, Local Console (System Control Functions), Automatic Polling, On-Line Maintenance, Autodial/Autoanswer Capabilities, Hardware Configurable
Price: $35,060 to $65,000
Monthly Maintenance Fee: $120
Distribution Method: End user
Number Installed to Date: 100 to 1,000
Date First Installed: September 1976

COMMEX, LTD.
DNP-II
Processor Function: Front-End Processor, Remote-Line Concentrator, Host Independent
Distributed Processing Nodes
Compatibility Classification: IBM 37XX
Word Length: 8 bit
Host Compatibility: IBM, DEC
Peripherals Supported: CRT, Printer
Maximum Number Input Lines: 16
Input Transmission Mode: Full-Duplex, Half-Duplex, Isochronous
Input Transmission Speeds:
Synchronous: 600 bps to 56,000 bps
Input Transmission Speeds:
Asynchronous: 75 bps to 19,200 bps
Input Port Code Supported: Ebcdic,

Communications Processors

Ascii, Baudot, PTTC
Protocols Supported: BSC, ADCCP, X.25, Asynchronous (Start/Stop), SDA2, TTY2, IBM Series/1
Maximum Output Lines: 1
Aggregate Transmission Rate: 1
Aggregate Transmission Rate: 750 bps
Features: Error Control, Terminal Emulation, Automatic Transmission Speed (Baud Rate) Detection, Terminal-Initiated Applications Switching, Automatic Disconnect, Multiplexer/Demultiplexer, Processor-Initiated Dynamic Line Reconfiguration, Local Console (System Control Functions), Automatic Polling, On-Line Maintenance, Statistics Collection, Autodial/Autoanswer Capabilities, Downline Loading of Remote Node, User Configurable
Price: $30,000 to $60,000
Monthly Maintenance Fee: $140
Distribution Method: End user
Number Installed to Date: 50 to 100
Date First Installed: 1982

COMMEX, LTD.
DNP-48
Processor Function: Front-End Processor, Remote-Line Concentrator, Host Independent, Distributed Processing Nodes
Compatibility Classification: IBM 37XX
Word Length: 8 bit
Host Compatibility: IBM, DEC
Peripherals Supported: CRT, Printer
Maximum Number Input Lines: 23
Input Transmission Mode: Full-Duplex, Half-Duplex, Isochronous
Input Transmission Speeds:
Synchronous: 600 bps to 56,000 bps
Asynchronous: 75 bps to 19,200 bps
Input Port Code Supported: Ebcdic, Ascii, Baudot, PTTC
Protocols Supported: BSC, ADCCP, X.25, Asynchronous (Start/Stop), SDA2, TTY2, IBM Series/1
Maximum Output Lines: 1
Aggregate Transmission Rate: 750 bps
Features: Error Control, Terminal Emulation, Automatic Transmission Speed (Baud Rate) Detection, Terminal-Initiated Applications Switching, Automatic Disconnect, Multiplexer/Demultiplexer, Processor-Initiated Dynamic Line Reconfiguration, Local Console (System Control Functions), Automatic Polling, On-Line Maintenance, Statistics Collection, Autodial/Autoanswer Capabilities, Downline Loading of Remote Node, User Configurable
Price: $50,000 to $107,000
Monthly Maintenance Fee: $195
Distribution Method: End user
Number Installed to Date: 50 to 100
Date First Installed: 1982

COMMEX, LTD.
DNP-16I
Processor Function: Front-End Processor, Remote-Line Concentrator, Host Independent, Distributed Processing Nodes
Compatibility Classification: IBM 37XX
Word Length: 8 bit
Host Compatibility: IBM, DEC
Peripherals Supported: CRT, Printer
Maximum Number Input Lines: 63
Input Transmission Mode: Full-Duplex, Half-Duplex, Isochronou
Input Transmission Speeds:
Synchronous: 600 bps to 56,000 bps
Asynchronous: 75 bps to 19,200 bps
Input Port Code Supported: Ebcdic, Ascii, Baudot, PTTC
Protocols Supported: BSC, ADCCP, X.25, Asynchronous (Start/Stop), SDA2, TTY2, IBM Series/1
Maximum Output Lines: 4
Aggregate Transmission Rate: 750 bps
Features: Error Control, Terminal Emulation, Automatic Transmission Speed (Baud Rate) Detection, Terminal-Initiated Applications Switching, Automatic Disconnect, Multiplexer/Demultiplexer, Processor-Initiated Dynamic Line Reconfiguration, Local Console (System Control Functions), Automatic Polling, On-Line Maintenance, Statistics Collection, Autodial/Autoanswer Capabilities, Downline Loading of Remote Node, User Configurable
Price: $75,000 to $250,000
Monthly Maintenance Fee: $195
Distribution Method: End user
Number Installed to Date: 50 to 100
Date First Installed: 1982

COMMITEX, INC.
TERMINAL CONCENTRATOR; MDS-8870
Processor Function: Message Switch, Remote-Line Concentrator, Distributed Processing Nodes
Compatibility Classification: IBM 3274/6 Compatible
Word Length: 6 bit, 16 bit
Host Compatibility: IBM 360/370, IBM 303X, 43XX, TTY
Peripherals Supported: CRT, Printer, Tape Drive, Disk Drive
Maximum Number Input Lines: 125
Input Transmission Mode: Full-Duplex
Input Transmission Speeds:
Synchronous: 19,200 bps
Asynchronous: 110 bps to 19,200 bps
Input Port Code Supported: Ascii
Protocols Supported: BSC, SDLC, X.25, Asynchronous (Start/Stop)
Maximum Output Lines: 4
Aggregate Transmission Rate: 4
Features: Protocol and Code Conversion, Error Control, Terminal Emulation, Automatic Transmission Speed (Baud Rate) Detection, Terminal-Initiated Applications Switching, Automatic Disconnect, Terminal Controller, Local Console (System Control Functions), Automatic Polling, User Programmable, Statistics Collection, Autodial/Autoanswer Capabilities, Downline Loading of Remote Node, Switching
Price: $4,000 to $20,000
Distribution Method: Third-party
Number Installed to Date: 1,000 to 10,000
Date First Installed: February 1981

COMPUTER COMMUNICATIONS, INC.
CC-8
Processor Function: Front-End Processor
Compatibility Classification: IBM 37XX
Word Length: 16 bit
Host Compatibility: IBM 370, IBM 30XX, IBM 43XX
Peripherals Supported: CRT, Printer, Disk Drive
Maximum Number Input Lines: 32
Input Transmission Mode: Full-Duplex, Half-Duplex
Input Transmission Speeds:
Synchronous: 2,000 bps to 56,000 bps
Input Transmission Speeds:
Asynchronous: 75 bps to 6,800 bps
Input Port Code Supported: Ascii
Protocols Supported: BSC, Asynchronous (Start/Stop)
Maximum Output Lines: 2
Aggregate Transmission Rate: 6,000 bps
Features: Protocol and Code Conversion, Error Control, Automatic Transmission Speed (Baud Rate) Detection, Processor-Initiated Dynamic Line Reconfiguration, Terminal Controller, Local Console (System Control Functions), Automatic Polling, User Programmable, Autodial/Autoanswer Capabilities
Price: $28,000 to $60,000
Distribution Method: End user
Date First Installed: 1981
(See Vendor Profile Page V-6)

COMPUTER COMMUNICATIONS, INC.
CC-9
Processor Function: Front-End Processor
Compatibility Classification: IBM 37XX
Word Length: 16 bit
Host Compatibility: IBM 370, IBM 30XX, IBM 43XX
Peripherals Supported: CRT, Printer, Disk Drive
Maximum Number Input Lines: 240
Input Transmission Mode: Full-Duplex, Half-Duplex
Input Transmission Speeds:
Synchronous: 2,000 bps to 230,400 bps
Input Transmission Speeds:
Asynchronous: 75 bps to 9,600 bps
Input Port Code Supported: Ascii
Protocols Supported: BSC, Asynchronous (Start/Stop), TTY
Maximum Output Lines: 4
Aggregate Transmission Rate: 16,000 bps
Features: Protocol and Code Conversion, Error Control, Automatic Transmission Speed (Baud Rate) Detection, Terminal Controller, Local Console (System Control Functions), Automatic Polling, User Programmable, Statistics Collection, Autodial/Autoanswer Capabilities, X.25 Support
Price: $50,000 to $100,000
Distribution Method: End user
Number Installed to Date: 300
Date First Installed: 1978

COMPUTER COMMUNICATIONS, INC.
CC-96
Processor Function: Message Switch, Electronic Mail
Compatibility Classification: Custom Design Communications Processor
Word Length: 16 bit
Host Compatibility: IBM 370, IBM 30XX, IBM 43XX
Peripherals Supported: CRT, Printer, Tape Drive, Disk Drive
Maximum Number Input Lines: 1,000
Input Transmission Mode: Full-Duplex, Half-Duplex
Input Transmission Speeds:
Synchronous: 2,000 bps to 230,400 bps
Asynchronous: 75 bps to 9,600 bps
Input Port Code Supported: Ebcdic, Ascii, X.25
Protocols Supported: BSC, HDLC, Asynchronous (Start/Stop), Sabre X.25
Maximum Output Lines: 7
Aggregate Transmission Rate: 12,000 bps
Features: Protocol and Code Conversion, Error Control, Terminal Emulation, Automatic Transmission Speed (Baud Rate) Detection, Terminal-Initiated Applications Switching, Automatic Disconnect, Processor-Initiated Dynamic Line Reconfiguration, Terminal Controller, Local Console (System Control Functions), Automatic Polling, User Programmable, On-Line Maintenance, Statistics Collection, Autodial/Autoanswer Capabilities
Price: $200,000 to $500,000
Distribution Method: End user
Number Installed to Date: 50 to 100
Date First Installed: 1978

COMPUTER COMMUNICATIONS, INC.
CC-95
Processor Function: Message Switch, Electronic Mail
Compatibility Classification: Custom Design Communication Processor
Word Length: 16 bit
Host Compatibility: IBM 370, IBM 30XX, IBM 43XX
Peripherals Supported: CRT, Printer, Tape Drive, Disk Drive
Maximum Number Input Lines: 1,000
Input Transmission Mode: Full-Duplex, Half-Duplex

Input Transmission Speeds:
Synchronous: 2,000 bps to 230,400 bps
Input Transmission Speeds:
Asynchronous: 75 bps to 9,600 bps
Input Port Code Supported: Ebcdic, Ascii, X.25
Protocols Supported: BSC, HDLC, Asynchronous (Start/Stop), Sabre X.25
Maximum Output Lines: 7
Aggregate Transmission Rate: 24,000 bps
Features: Protocol and Code Conversion, Error Control, Terminal Emulation, Automatic Transmission Speed (Baud Rate) Detection, Terminal-Initiated Applications Switching, Automatic Disconnect, Processor-Initiated Dynamic Line ReconAguration, Terminal Controller, Local Console (System Control Functions), Automatic Polling, User Programmable, On-Line Maintenance, Statistics Collection, Autodial/Autoanswer Capabilities
Price: $200,000 to $500,000
Distribution Method: End user
Number Installed to Date: 50 to 100
Date First Installed: 1979

COMPUTER IDENTICS CORP.
LDP-5
Processor Function: Front-End Processor
Compatibility Classification: IBM 370X
Word Length: 9 bit
Peripherals Supported: CRT, Printer, Bar Code Scanner
Maximum Number Input Lines: 32
Input Transmission Mode: Full-Duplex
Input Transmission Speeds:
Asynchronous: 110 bps to 9,600 bps
Input Port Code Supported: Ascii
Protocols Supported: Asynchronous (Start/Stop)
Maximum Output Lines: 9
Aggregate Transmission Rate: 96 bps
Features: Protocol and Code Conversion, Terminal Emulation, Multiplexer/Demultiplexer, Local Console (System Control Functions), Automatic Polling, Statistics Collection, Downline Loading of Remote Node
Price: $30,000
Distribution Method: Third-party
Number Installed to Date: 50 to 100
Date First Installed: 1978
(See Vendor Profile Page V-7)

COMPUTER SYSTEMS
CP/86
Processor Function: Front-End Processor, Remote-Line Concentrator
Compatibility Classification: IBM 270X
Word Length: 16 bit
Host Compatibility: IBM PC-XT,4300, DEC PDP-11, DEC VAX-780
Peripherals Supported: CRT, Printer, Tape Drive, Disk Drive, Diagnostic/Test
Maximum Number Input Lines: 32
Input Transmission Mode: Full-Duplex, Half-Duplex
Input Transmission Speeds:
Synchronous: 2,400 bps to 9,000 bps
Asynchronous: 300 bps to 19,200 bps
Input Port Code Supported: Ebcdic, Ascii, Parallel Binary Data
Protocols Supported: BSC, SDLC, Asynchronous (Start/Stop)
Maximum Output Lines: 2
Aggregate Transmission Rate: 1,000 bps
Features: Protocol and Code Conversion, Error Control, Terminal Emulation, Automatic Transmission Speed (Baud Rate) Detection, Terminal-Initiated Applications Switching, Multiplexer/Demultiplexer, Terminal Controller, User Programmable, Autodial/Autoanswer Capabilities
Price: $2,800 to $10,000
Distribution Method: End user
Date First Installed: 1982
(See Vendor Profile Page V-7)

CONTROL DATA CORP.
2551-3
Processor Function: Front-End Processor
Compatibility Classification: Non-IBM (General Purpose)
Word Length: 16 bit
Host Compatibility: CDC Cyber 700, CDC Cyber 800
Peripherals Supported: Tape Drive
Maximum Number Input Lines: 256
Input Transmission Mode: Full-Duplex, Half-Duplex
Input Transmission Speeds:
Synchronous: 56,000 bps
Asynchronous: 9,600 bps
Input Port Code Supported: Ebcdic, Ascii, X.25
Protocols Supported: BSC, SDLC, HDLC, X.25, HASP, CDCCD
Maximum Output Lines: 256
Aggregate Transmission Rate: 256
Features: Protocol and Code Conversion, Error Control, Terminal Emulation, Automatic Transmission Speed (Baud Rate) Detection, Automatic Disconnect, Multiplexer/Demultiplexer, Terminal Controller, Local Console (System Control Functions), Automatic Polling, User Programmable, On-Line Maintenance, Statistics Collection, Autodial/Autoanswer Capabilities, Downline Loading of Remote Node
Price: $36,170
Monthly Maintenance Fee: $425
Distribution Method: End user
Date First Installed: 1974
(See Vendor Profile Page V-8)

CONTROL DATA CORP.
2551-4
Processor Function: Front-End Processor
Compatibility Classification: Non-IBM (General Purpose)
Word Length: 16 bit
Host Compatibility: CDC Cyber 700, CDC Cyber 800
Maximum Number Input Lines: 256
Input Transmission Mode: Full-Duplex, Half-Duplex
Input Transmission Speeds:
Synchronous: 56,000 bps
Input Transmission Speeds:
Asynchronous: 9,600 bps
Input Port Code Supported: Ebcdic, Ascii, X.25
Protocols Supported: BSC, SDLC, HDLC, X.25, HASP, CDCCP
Maximum Output Lines: 256
Aggregate Transmission Rate: 256
Features: Protocol and Code Conversion, Error Control, Terminal Emulation, Automatic Transmission Speed (Baud Rate) Detection, Automatic Disconnect, Multiplexer/Demultiplexer, Terminal Controller, Local Console (System Control Functions), Automatic Polling, User Programmable, On-Line Maintenance, Statistics Collection, Autodial/Autoanswer Capabilities, Downline Loading of Remote Node
Price: $47,853
Monthly Maintenance Fee: $475
Distribution Method: End user
Date First Installed: 1974

DATAGRAM CORP.
DM 1000S
Processor Function: Front-End Processor
Compatibility Classification: Non-IBM (General Purpose)
Word Length: 8 bit
Host Compatibility: Burroughs Mainframes
Peripherals Supported: CRT, Printer, Diagnostic/Test
Maximum Number Input Lines: 40
Input Transmission Mode: Full-Duplex, Half-Duplex
Input Transmission Speeds:
Synchronous: 110 bps to 9,600 bps
Asynchronous: 110 bps to 9,600 bps
Input Port Code Supported: Ebcdic, Ascii, Baudot
Protocols Supported: Asynchronous (Start/Stop), Burroughs Poll Select
Maximum Output Lines: 2
Aggregate Transmission Rate: 192 bps
Features: Protocol and Code Conversion, Error Control, Automatic Transmission Speed (Baud Rate) Detection, Terminal-Initiated Applications Switching, Automatic Disconnect, Processor-Initiated Dynamic Line Reconfiguration, Local Console (System Control Functions), Automatic Polling, User Programmable, On-Line Maintenance, Autodial/Autoanswer Capabilities, Downline Loading of Remote Node
Price: $6,000 to $30,000
Distribution Method: End user
Number Installed to Date: 100 to 1,000
Date First Installed: January 1979
(See Vendor Profile Page V-9)

DATAPOINT, INC.
DR-19
Processor Function: Distributed Processing Nodes
Compatibility Classification: Non-IBM (General Purpose)
Word Length: 8 bit
Peripherals Supported: CRT, Printer, Disk Drive, Diagnostic/Test
Input Transmission Mode: Full-Duplex, Half-Duplex
Input Transmission Speeds:
Synchronous: 50 bps to 19,200 bps
Asynchronous: 50 bps to 19,600 bps
Input Port Code Supported: Ebcdic, Ascii, X.25, Parallel Binary Data
Protocols Supported: BSC, SDLC, HDLC, X.25, Asynchronous (Start/Stop)
Maximum Output Lines: 2
Features: Protocol and Code Conversion, Error Control, Terminal Emulation, Automatic Transmission Speed (Baud Rate) Detection, Terminal-Initiated Applications Switching, Automatic Disconnect, Multiplexer/Demultiplexer, Processor-Initiated Dynamic Line ReconAguration, Terminal Controller, Local Console (System Control Functions), Automatic Polling, Statistics Collection
Price: $750
Distribution Method: End user
Number Installed to Date: 100 to 1,000
Date First Installed: September 1982
(See Vendor Profile Page V-9)

DATASTREAM COMMUNICATIONS, INC.
774
Processor Function: Remote-Line Concentrator
Compatibility Classification: IBM 3270
Host Compatibility: IBM
Peripherals Supported: CRT, Printer, Diagnostic/Test
Maximum Number Input Lines: 15
Input Transmission Mode: Half-Duplex
Input Transmission Speeds:
Synchronous: 110 bps to 9,600 bps
Asynchronous: 110 bps to 9,600 bps
Input Port Code Supported: Ebcdic, Ascii, Asynchronous Serial
Protocols Supported: BSC
Maximum Output Lines: 2
Aggregate Transmission Rate: 2
Features: Protocol and Code Conversion, Terminal Emulation, Automatic Transmission Speed (Baud Rate) Detection, Terminal-Initiated Applications Switching, Automatic Disconnect, Terminal Controller, Local Console (System Control Functions), User Programmable
Price: $4,000 to $10,000
Monthly Maintenance Fee: $125
Distribution Method: End user
Number Installed to Date: 100 to 1,000
Date First Installed: September 1980
(See Vendor Profile Page V-9)

Communications Processors

DATASTREAM COMMUNICATION, INC.
776
Processor Function: Remote-Line Concentrator
Compatibility Classification: IBM 3270
Host Compatibility: IBM
Peripherals Supported: CRT, Printer, Diagnostic/Test
Maximum Number Input Lines: 15
Input Transmission Mode: Half-Duplex
Input Transmission Speeds:
Synchronous: 110 bps to 9,600 bps
Asynchronous: 110 bps to 9,600 bps
Input Port Code Supported: Ebodic, Ascii, Asynchronous Serial
Protocols Supported: BSC
Maximum Output Lines: 2
Aggregate Transmission Rate: 2
Features: Protocol and Code Conversion, Terminal Emulation, Automatic Transmission Speed (Baud Rate) Detection, Terminal-Initiated Applications Switching, Automatic Disconnect, Terminal Controller, Local Console (System Control Functions), User Programmable
Price: $4,000 to $6,000
Monthly Maintenance Fee: $100
Distribution Method: End user
Number Installed to Date: 100 to 1,000
Date First Installed: September 1980

DATASTREAM COMMUNICATION, INC.
674
Processor Function: Remote-Line Concentrator
Compatibility Classification: IBM-3270
Host Compatibility: IBM
Peripherals Supported: CRT, Printer, Diagnostic/Test
Maximum Number Input Lines: 15
Input Transmission Mode: Half-Duplex
Input Transmission Speeds:
Synchronous: 110 bps to 9,600 bps
Asynchronous: 110 bps to 9,600 bps
Input Port Code Supported: Ebodic, Ascii, Asynchronous Serial
Protocols Supported: BSC
Maximum Output Lines: 2
Aggregate Transmission Rate: 2
Features: Protocol and Code Conversion, Terminal Emulation, Automatic Transmission Speed (Baud Rate) Detection, Terminal-Initiated Applications Switching, Automatic Disconnect, Terminal Controller, Local Console (System Control Functions), User Programmable
Price: $16,000
Monthly Maintenance Fee: $119
Distribution Method: End user
Number Installed to Date: 100 to 1,000
Date First Installed: September 1981

DATASTREAM COMMUNICATION, INC.
MPC
Processor Function: Remote-Line Concentrator
Compatibility Classification: IBM 3270
Host Compatibility: IBM
Peripherals Supported: CRT, Printer, Diagnostic/Test
Maximum Number Input Lines: 15
Input Transmission Mode: Half-Duplex
Input Transmission Speeds:
Synchronous: 110 bps to 9,600 bps
Asynchronous: 110 bps to 9,600 bps
Input Port Code Supported: Ebodic, Ascii, Asynchronous Serial
Maximum Output Lines: 2
Aggregate Transmission Rate: 2
Features: Protocol and Code Conversion, Terminal Emulation, Automatic Transmission Speed (Baud Rate) Detection, Terminal-Initiated Applications Switching, Automatic Disconnect, Terminal Controller, Local Console (System Control Functions), User Programmable
Price: $6,000 to $12,000
Monthly Maintenance Fee: $150
Distribution Method: End user
Number Installed to Date: 1 to 10
Date First Installed: January 1984

DAYCOM CORP.
DAYCOM
Processor Function: Front-End Processor, Message Switch, Remote-Line Concentrator, Host Independent, Distributed Processing Nodes
Compatibility Classification: Non-IBM (General Purpose)
Word Length: 16 bit, 32 bit
Peripherals Supported: CRT, Printer, Tape Drive, Disk Drive, Diagnostic/Test
Input Transmission Mode: Full-Duplex, Half-Duplex
Input Port Code Supported: Ebodic, Ascii
Protocols Supported: BSC, SDLC, HDLC, BDLC
Features: Error Control, Automatic Transmission Speed (Baud Rate) Detection, Automatic Disconnect, Automatic Polling, User Programmable, On-Line Maintenance, Statistics Collection
Number Installed to Date: 100 to 1,000
(See Vendor Profile Page V-10)

DCA/TAC
SYSTEM 335
Processor Function: Host Independent
Compatibility Classification: Network Processor
Word Length: 8 bit
Host Compatibility: DEC, DG, IBM
Peripherals Supported: CRT, Printer, Tape Drive, Disk Drive
Maximum Number Input Lines: 42
Input Transmission Mode: Full-Duplex
Input Transmission Speeds:
Synchronous: 2,400 bps to 9,600 bps
Asynchronous: 50 bps to 9,600 bps
Input Port Code Supported: Ebodic, Ascii, X.25, Baudot
Protocols Supported: BSC, X.25, Asynchronous (Start/Stop)
Maximum Output Lines: 42
Aggregate Transmission Rate: 4,000 bps
Features: Protocol and Code Conversion, Error Control, Automatic Transmission Speed (Baud Rate) Detection, Terminal-Initiated Applications Switching, Automatic Disconnect, Multiplexer/Demultiplexer, Processor-Initiated Dynamic Line Reconfiguration, Terminal Controller, Local Console (System Control Functions), Automatic Polling, User Programmable, On-Line Maintenance
Distribution Method: End user, OEM, Third-party
Date First Installed: 1984
(See Vendor Profile Page V-10)

DCA/TAC
SYSTEM 368
Processor Function: Host Independent
Compatibility Classification: Network Processor
Word Length: 8 bit
Host Compatibility: DEC, DG, IBM
Peripherals Supported: CRT, Printer, Tape Drive, Disk Drive
Maximum Number Input Lines: 126
Input Transmission Mode: Full-Duplex
Input Transmission Speeds:
Synchronous: 2,400 bps to 9,600 bps
Asynchronous: 50 bps to 9,600 bps
Input Port Code Supported: Ebodic, Ascii, X.25, Baudot
Protocols Supported: BSC, X.25, Asynchronous (Start/Stop)
Maximum Output Lines: 126
Aggregate Transmission Rate: 4,000 bps
Features: Protocol and Code Conversion, Error Control, Automatic Transmission Speed (Baud Rate) Detection, Terminal-Initiated Applications Switching, Automatic Disconnect, Multiplexer/Demultiplexer, Processor-Initiated Dynamic Line Reconfiguration, Terminal Controller, Local Console (System Control Functions), Automatic Polling, User Programmable, On-Line Maintenance
Distribution Method: End user, OEM, Third-party
Number Installed to Date: 100 to 1,000
Date First Installed: 1980

DIGITAL EQUIPMENT CORP.
ETHERNET COMMUNICATIONS SERVERS
Processor Function: Front-End Processor, Remote-Line Concentrator, Host Independent
Compatibility Classification: DEC Communication Service for Ethernet
Word Length: 16 bit
Host Compatibility: DEC
Maximum Number Input Lines: 32
Input Transmission Mode: Full-Duplex
Input Transmission Speeds:
Asynchronous: 19,200 bps
Input Port Code Supported: Ascii
Protocols Supported: Asynchronous (Start/Stop)
Maximum Output Lines: 32
Aggregate Transmission Rate: 32
Distribution Method: End user, OEM, Third-party
Date First Installed: March 1984
(See Vendor Profile Page V-10)

ENGINEERED SYSTEMS, INC.
TCS/800
Processor Function: Front-End Processor
Compatibility Classification: IBM 3270
Word Length: 16 bit
Host Compatibility: IBM 3270
Peripherals Supported: CRT, Printer, Tape Drive, Disk Drive, Diagnostic/Test
Maximum Number Input Lines: 144
Input Transmission Mode: Full-Duplex
Input Transmission Speeds:
Asynchronous: 600 bps
Input Port Code Supported: Ebodic, Ascii, X.25, Parallel Binary Data, Baudot
Protocols Supported: BSC, SDLC, HDLC, X.25, Asynchronous (Start/Stop)
Maximum Output Lines: 144
Aggregate Transmission Rate: 192 bps
Features: Protocol and Code Conversion, Error Control, Terminal Emulation, Automatic Transmission Speed (Baud Rate) Detection, Terminal-Initiated Applications Switching, Automatic Disconnect, Multiplexer/Demultiplexer, Processor-Initiated Dynamic Line Reconfiguration, Terminal Controller, Local Console (System Control Functions), Automatic Polling, User Programmable, On-Line Maintenance, Statistics Collection, Autodial and Autoanswer Capabilities, Downline Loading of Remote Node
Price: $15,000
Distribution Method: End user
Number Installed to Date: 1 to 10
Date First Installed: October 1981
(See Vendor Profile Page V-11)

ENWAX SYSTEMS, INC.
ENWAX 800
Processor Function: Front-End Processor, Host Independent
Compatibility Classification: Non-IBM (General Purpose)
Word Length: 8 bit
Peripherals Supported: CRT, Printer, Diagnostic/Test
Maximum Number Input Lines: 3
Input Transmission Mode: Full-Duplex, Half-Duplex
Input Transmission Speeds:
Asynchronous: 2,400 bps

Input Port Code Supported: Ebcdic, Ascii, Baudot
Protocols Supported: Asynchronous (Start/Stop)
Maximum Output Lines: 1
Aggregate Transmission Rate: 96 bps
Features: Protocol and Code Conversion, Automatic Disconnect, On-Line Maintenance, Autodial/Autoanswer Capabilities
Price: $1,000 to $3,000
Distribution Method: Third-party
Number Installed to Date: 1,000 to 10,000
Date First Installed: October 1978
(See Vendor Profile Page V-11)

SINVAL SYSTEMS, INC.
TRANSACTION PROCESSOR
Processor Function: Front-End Processor
Compatibility Classification: IBM 37XX
Word Length: 8 bit
Host Compatibility: IBM 370, 360, DG, Datapoint ARC
Peripherals Supported: CRT, Printer, Tape Drive, Disk Drive, Diagnostic/Test
Maximum Number Input Lines: 32
Input Transmission Mode: Full-Duplex, Half-Duplex
Input Transmission Speeds:
Asynchronous: 9,600 bps
Input Port Code Supported: Ebcdic, Ascii, X.25, Parallel Binary Data, Baudot
Protocols Supported: BSC, SDLC, HDLC, SDLC, X.25, Asynchronous (Start/Stop)
Maximum Output Lines: 4
Aggregate Transmission Rate: 1 Mbps
Features: Protocol and Code Conversion, Error Control, Automatic Transmission Speed (Baud Rate) Detection, Automatic Disconnect, Multiplexer/Demultiplexer, Processor-Initiated Dynamic Line Reconfiguration, Local Console (System Control Functions), On-Line Maintenance, Autodial/Autoanswer Capabilities, Downline Loading of Remote Node
Price: $4,000 to $20,000
Distribution Method: Third-party
Number Installed to Date: 50 to 100
Date First Installed: February 1981

SKYDATA
SKYDATA 1000
Processor Function: Front-End Processor
Compatibility Classification: IBM 37XX
Word Length: 8 bit
Host Compatibility: IBM
Peripherals Supported: CRT, Printer, Tape Drive, Disk Drive, Diagnostic/Test
Maximum Number Input Lines: 16
Input Transmission Mode: Full-Duplex, Half-Duplex
Input Transmission Speeds:
Synchronous: 2,400 bps to 56,000 bps
Asynchronous: 110 bps to 19,200 bps
Input Port Code Supported: Ebcdic, Ascii, X.25, Parallel Binary Data, Baudot
Protocols Supported: BSC, SDLC, ADCCP, HDLC, X.25, Asynchronous (Start/Stop)
Maximum Output Lines: 16
Aggregate Transmission Rate: 5,000 bps
Features: Protocol and Code Conversion, Error Control, Terminal Emulation, Automatic Transmission Speed (Baud Rate) Detection, Terminal-Initiated Applications Switching, Automatic Disconnect, Local Console (System Control Functions), Autopolic Polling, User Programmable, On-Line Maintenance, Statistics Collection, Autodial/Autoanswer Capabilities, Downline Loading of Remote Node
Price: $1,500 to $4,800
Distribution Method: Third-party
Number Installed to Date: 1 to 10
Date First Installed: January 1983
(See Vendor Profile Page V-12)

SYTEK
SYTEK TELENET COMMUNICATIONS CORP.
TP-3000 NETWORK INTERFACE PROCESSOR
Processor Function: Remote-Line Concentrator, Host Independent, Distributed Processing Nodes
Compatibility Classification: Non-IBM (General Purpose)
Word Length: 8 bit
Maximum Number Input Lines: 8
Input Transmission Mode: Half-Duplex
Input Transmission Speeds:
Asynchronous: 110 bps to 9,600 bps
Input Port Code Supported: Ascii
Protocols Supported: X.25, Asynchronous (Start/Stop), X.28, X.25, X.3
Maximum Output Lines: 1
Aggregate Transmission Rate: 1 Mbps
Features: Protocol and Code Conversion, Error Control, Automatic Transmission Speed (Baud Rate) Detection, Terminal-Initiated Applications Switching, Automatic Disconnect, Multiplexer/Demultiplexer, Local Console (System Control Functions), On-Line Maintenance, Statistics Collection, Autodial/Autoanswer Capabilities, Downline Loading of Remote Node
Price: $2,350
Monthly Maintenance Fee: $30
Distribution Method: End user
Number Installed to Date: 100 to 1,000
Date First Installed: January 1983
(See Vendor Profile Page V-13)

SYTEK
SYTEK TELENET COMMUNICATIONS CORP.
TP3010-8 NETWORK INTERFACE PROCESSOR
Processor Function: Remote-Line Concentrator, Host Independent, Distributed Processing Nodes
Compatibility Classification: Network Interface Process
Word Length: 8 bit
Peripherals Supported: Tape Drive
Maximum Number Input Lines: 28
Input Transmission Mode: Full-Duplex, Half-Duplex
Input Transmission Speeds:
Synchronous: 1,200 bps to 9,600 bps
Asynchronous: 50 bps to 9,600 bps
Input Port Code Supported: Ebcdic, Ascii, Baudot
Protocols Supported: BSC, SDLC, X.25, Asynchronous (Start/Stop), 3270 DSP BPAD
Maximum Output Lines: 1
Aggregate Transmission Rate: 1 Mbps
Features: Protocol and Code Conversion, Error Control, Terminal Emulation, Automatic Transmission Speed (Baud Rate) Detection, Terminal-Initiated Applications Switching, Automatic Disconnect, Multiplexer/Demultiplexer, Local Console (System Control Functions), Automatic Polling, On-Line Maintenance, Statistics Collection, Autodial/Autoanswer Capabilities, Downline Loading of Remote Node
Price: $7,500
Monthly Maintenance Fee: $65
Distribution Method: End user
Number Installed to Date: 1,000 to 10,000
Date First Installed: December 1978

HARRIS CORP.
HARRIS 1000
Processor Function: Distributed Processing Nodes
Compatibility Classification: IBM 37XX
Word Length: 16 bit
Host Compatibility: IBM
Maintenance: Sperry 1004, CDC 200 UT
Peripherals Supported: CRT, Printer, Tape Drive, Disk Drive, Diagnostic/Test, Card Reader
Maximum Number Input Lines: 4
Input Transmission Mode: Full-Duplex, Half-Duplex
Input Transmission Speeds:
Synchronous: 1,200 bps to 56,000 bps
Asynchronous: 110 bps to 9,600 bps
Input Port Code Supported: Ebcdic, Ascii
Protocols Supported: BSC, SDLC, HDLC, Asynchronous (Start/Stop)
Maximum Output Lines: 4
Aggregate Transmission Rate: 4 Mbps
Features: Protocol and Code Conversion, Error Control, Terminal Emulation, Terminal-Initiated Applications Switching, Terminal Controller, Local Console (System Control Functions), Automatic Polling, User Programmable, Statistics Collection, Autodial/Autoanswer Capabilities
Distribution Method: End user
Number Installed to Date: 1,000 to 10,000
Date First Installed: September 1974
(See Vendor Profile Page V-14)

HARRIS CORP.
HARRIS 8470
Processor Function: Front-End Processor
Programmable, Statistics Collection, Downline Loading of Remote Node
Price: $1,700
Distribution Method: OEM
Number Installed to Date: 1 to 10
Date First Installed: January 1983
(See Vendor Profile Page V-12)

GANDALF DATA, INC.
PACX IV
Processor Function: Front-End Processor, Message Switch, Remote-Line Concentrator, Host Independent, Distributed Processing Nodes
Compatibility Classification: Non-IBM (General Purpose)
Word Length: 8 bit, 16 bit
Peripherals Supported: CRT, Printer, Diagnostic/Test
Maximum Number Input Lines: 1,024
Input Transmission Mode: Full-Duplex
Input Transmission Speeds:
Synchronous: 2,400 bps to 19,200 bps
Asynchronous: 9,600 bps
Input Port Code Supported: Ebcdic, Ascii, X.25, Baudot
Protocols Supported: BSC, SDLC, HDLC, X.25, Asynchronous (Start/Stop)
Maximum Output Lines: 128
Aggregate Transmission Rate: 190,000 bps
Features: Protocol and Code Conversion, Error Control, Automatic Transmission Speed (Baud Rate) Detection, Terminal-Initiated Applications Switching, Automatic Disconnect, Multiplexer/Demultiplexer, Processor-Initiated Dynamic Line Reconfiguration, Terminal Controller, Local Console (System Control Functions), User Programmable, On-Line Maintenance, Statistics Collection, Autodial/Autoanswer Capabilities, Downline Loading of Remote Node
Distribution Method: End user
Number Installed to Date: 1,000 to 10,000
(See Vendor Profile Page V-12)

GATEWAY COMMUNICATIONS, INC.
GATEWAY PROCESSOR
Processor Function: Message Switch, Remote-Line Concentrator, Host Independent
Compatibility Classification: Non-IBM (General Purpose)
Word Length: 8 bit
Host Compatibility: IBM
Peripherals Supported: CRT, Printer, Disk Drive, Diagnostic/Test
Maximum Number Input Lines: 16
Input Transmission Mode: Full-Duplex, Half-Duplex
Input Transmission Speeds:
Synchronous: 2,400 bps to 56,000 bps
Asynchronous: 110 bps to 19,200 bps
Input Port Code Supported: Ebcdic, Ascii, X.25, Parallel Binary Data, Baudot

Communications Processors

Compatibility Classification: Non-IBM (General Purpose)
Word Length: 48 BIT
Host Compatibility: Harris 600, 700, 800, 1000
Peripherals Supported: CRT, Printer, Tape Drive, IEEE 488 Device
Maximum Number Input Lines: 16
Input Transmission Mode: Full-Duplex, Half-Duplex
Input Transmission Speeds:
Synchronous: 1,200 bps to 56,000 bps
Asynchronous: 50 bps to 19,200 bps
Input Port Code Supported: Ebcdic, Ascii, X.25, Parallel Binary Data
Protocols Supported: BSC, X.25, Asynchronous (Start/Stop), Isochronous
Maximum Output Lines: 1
Aggregate Transmission Rate: 15,000 bps
Features: Protocol and Code Conversion, Error Control, Automatic Transmission Speed (Baud Rate) Detection, Multiplexer/Demultiplexer, Processor-Initiated Dynamic Line Reconfiguration, Terminal Controller, Automatic Polling, User Programmable, On-Line Maintenance, Statistics Collection, Downline Loading of Remote Node
Price: $3,500
Monthly Maintenance Fee: $20
Distribution Method: End user
Date First Installed: September 1982

HARRIS CORP.
HARRIS 8040
Processor Function: Distributed Processing Nodes
Compatibility Classification: IBM 37XX
Word Length: 16 bit
Host Compatibility: IBM Mainframes, Sperry 1004, CDC 200 UT
Peripherals Supported: CRT, Printer, Tape Drive, Disk Drive, Diagnostic/Test, Card Reader
Maximum Number Input Lines: 4
Input Transmission Mode: Full-Duplex, Half-Duplex
Input Transmission Speeds:
Synchronous: 1,200 bps to 56,000 bps
Asynchronous: 110 bps to 9,600 bps
Input Port Code Supported: Ebcdic, Ascii
Protocols Supported: BSC, SDLC, HDLC, Asynchronous (Start/Stop)
Maximum Output Lines: 4
Aggregate Transmission Rate: 4
Features: Protocol and Code Conversion, Error Control, Terminal Emulation, Terminal-Initiated Applications Switching, Terminal Controller, Local Console (System Control Functions), Automatic Polling, User Programmable, Statistics Collection, Autodial/Autoanswer Capabilities
Distribution Method: End user
Number Installed to Date: 100 to 1,000
Date First Installed: March 1982

HEMMINGSEN DATA SYSTEMS
Z-80
Processor Function: Front-End Processor, Host Independent, Distributed Processing Nodes
Compatibility Classification: Non-IBM (General Purpose)
Word Length: 8 bit
Host Compatibility: IBM 370, IBM 4300
Peripherals Supported: CRT, Printer, Diagnostic/Test
Maximum Number Input Lines: 1
Input Transmission Mode: Full-Duplex, Half-Duplex
Input Transmission Speeds:
Asynchronous: 9,600 bps
Input Port Code Supported: Ascii
Protocols Supported: Asynchronous (Start/Stop)
Maximum Output Lines: 3
Aggregate Transmission Rate: 96 bps
Features: Protocol and Code Conversion, Terminal Emulation, Automatic Transmission Speed (Baud Rate) Detection, Terminal-Initiated Applications Switching, Automatic Disconnect, Terminal Controller, Automatic Polling, User Programmable, On-Line Maintenance, Autodial/Autoanswer Capabilities, Downline Loading of Remote Node
Price: $1,000
Monthly Maintenance Fee: $20
Distribution Method: Third-party
Number Installed to Date: 10,000 to 50,000
Date First Installed: April 1980
(See Vendor Profile Page V-14)

HEURIKON CORP.
HK-68A
Processor Function: Front-End Processor
Compatibility Classification: Non-IBM (General Purpose)
Word Length: 16 bit
Peripherals Supported: CRT, Printer, Tape Drive, Disk Drive, Diagnostic/Test
Maximum Number Input Lines: 48
Input Transmission Mode: Full-Duplex
Input Transmission Speeds:
Synchronous: 50 bps to 1,000,000 bps
Asynchronous: 50 bps to 38,400 bps
Input Port Code Supported: Ascii, X.25
Protocols Supported: BSC, SDLC, ADCCP, HDLC, X.25, Asynchronous (Start/Stop)
Maximum Output Lines: 16
Aggregate Transmission Rate: 16
Features: Protocol and Code Conversion, Error Control, Terminal Emulation, Automatic Transmission Speed (Baud Rate) Detection, Terminal-Initiated Applications Switching, Automatic Disconnect, Multiplexer/Demultiplexer, Terminal Controller, Local Console (System Control Functions), Automatic Polling, User Programmable, On-Line Maintenance, Statistics Collection, Autodial/Autoanswer Capabilities, Downline Loading of Remote Node
Price: $3,295
Distribution Method: End user, OEM
Number Installed to Date: 100 to 1,000
Date First Installed: October 1983
(See Vendor Profile Page V-14)

HONEYWELL, INC.
DATANET 6
Processor Function: Front-End Processor, Remote-Line Concentrator, Host Independent, Distributed Processing Nodes
Compatibility Classification: Network Processor
Word Length: 16 bit
Host Compatibility: Honeywell DPS 8, DPS 66, DPS 64
Peripherals Supported: Disk Drive
Maximum Number Input Lines: 128
Input Transmission Mode: Full-Duplex, Half-Duplex
Input Transmission Speeds:
Synchronous: 1,200 bps to 56,000 bps
Asynchronous: 75 bps to 19,200 bps
Input Port Code Supported: Ebcdic, Ascii, X.25
Protocols Supported: BSC, ADCCP, HDLC
Maximum Output Lines: 4
Aggregate Transmission Rate: 4
Features: Protocol and Code Conversion, Error Control, Automatic Transmission Speed (Baud Rate) Detection, Terminal-Initiated Applications Switching, Automatic Disconnect, Multiplexer/Demultiplexer, Processor-Initiated Dynamic Line Reconfiguration, Local Console (System Control Functions), Automatic Polling, On-Line Maintenance, Statistics Collection, Downline Loading of Remote Node, Autoanswer Capabilities
Price: $39,065
Monthly Maintenance Fee: $240
Distribution Method: End user
Date First Installed: September 1980
(See Vendor Profile Page V-14)

HONEYWELL, INC.
DATANET 6661
Processor Function: Front-End Processor
Compatibility Classification: Network Processor
Word Length: 16 bit
Host Compatibility: Honeywell Series 60
Peripherals Supported: CRT
Maximum Number Input Lines: 96
Input Transmission Mode: Full-Duplex, Half-Duplex
Input Transmission Speeds:
Synchronous: 1,200 bps to 56,000 bps
Asynchronous: 75 bps to 19,200 bps
Input Port Code Supported: Ebcdic, Ascii
Protocols Supported: BSC, ADCCP, HDLC
Maximum Output Lines: 1
Aggregate Transmission Rate: 1
Features: Protocol and Code Conversion, Error Control, Automatic Transmission Speed (Baud Rate) Detection, Terminal-Initiated Applications Switching, Automatic Disconnect, Multiplexer/Demultiplexer, Terminal Controller, Local Console (System Control Functions), Automatic Polling, User Programmable, On-Line Maintenance, Statistics Collection, Autodial/Autoanswer Capabilities, Downline Loading of Remote Node
Price: $36,805
Monthly Maintenance Fee: $252
Distribution Method: End user
Date First Installed: 1980

IBM CORP.
3704
Processor Function: Front-End Processor
Compatibility Classification: IBM 37XX
Host Compatibility: IBM S/370, IBM 4300, IBM 303X, 308X
Maximum Number Input Lines: 32
Input Transmission Mode: Full-Duplex, Half-Duplex
Input Transmission Speeds:
Synchronous: 1,200 bps
Asynchronous: 110 bps to 1,200 bps
Input Port Code Supported: Ebcdic, Ascii
Protocols Supported: BSC, SDLC, Asynchronous (Start/Stop)
Maximum Output Lines: 2
Aggregate Transmission Rate: 1
Features: Error Control, Terminal-Initiated Applications Switching, Automatic Polling, User Programmable, Autodial/Autoanswer Capabilities
Price: $36,150
Distribution Method: End user
Date First Installed: February 1973
(See Vendor Profile Page V-14)

IBM CORP.
3705-80 M01-M03
Processor Function: Front-End Processor, Remote-Line Concentrator
Compatibility Classification: IBM 37XX
Host Compatibility: IBM S/370, IBM 303X, 308X, IBM 43XX
Maximum Number Input Lines: 16
Input Transmission Mode: Full-Duplex, Half-Duplex
Input Port Code Supported: Ebcdic, Ascii, X.25
Protocols Supported: BSC, SDLC, X.25, Asynchronous (Start/Stop)
Maximum Output Lines: 2
Aggregate Transmission Rate: 2
Features: Protocol and Code Conversion, Error Control, Automatic Transmission Speed (Baud Rate) Detection, Terminal-Initiated Applications Switching, Multiplexer/Demultiplexer, Automatic Polling, User Programmable, Statistics Collection, Downline Loading of Remote Node
Price: $39,300 to $55,940
Distribution Method: End user
Date First Installed: June 1981

IBM CORP.
3705-II E1-L4
Processor Function: Front-End Processor, Remote-Line Concentrator
Compatibility Classification: IBM 37XX
Host Compatibility: IBM 370, IBM 303X, 308X, IBM 43XX
Maximum Number Input Lines: 352
Input Transmission Mode: Full-Duplex, Half-Duplex
Input Transmission Speeds:
Synchronous: 1,200 bps to 230,400 bps
Asynchronous: 455 bps to 9,600 bps
Input Port Code Supported: Ebcdic, Ascii, X.25, Baudot
Protocols Supported: BSC, SDLC, X.25, Asynchronous (Start/Stop), Line Control
Maximum Output Lines: 4
Aggregate Transmission Rate: 4
Features: Protocol and Code Conversion, Error Control, Automatic Transmission Speed (Baud Rate) Detection, Terminal-Initiated Applications Switching, Automatic Polling, User Programmable, Downline Loading of Remote Node
Price: $49,270 to $300,610
Distribution Method: End user
Date First Installed: August 1978

IBM CORP.
3725-1
Processor Function: Front-End Processor, Remote-Line Concentrator
Compatibility Classification: IBM 37XX
Host Compatibility: IBM S/370, IBM 303X, 308X, IBM 43XX
Peripherals Supported: CRT
Maximum Number Input Lines: 256
Input Transmission Mode: Full-Duplex, Half-Duplex
Input Transmission Speeds:
Synchronous: 1,200 bps to 256,000 bps
Asynchronous: 50 bps to 6,800 bps
Input Port Code Supported: Ebcdic, Ascii, X.25
Protocols Supported: BSC, SDLC, X.25, Asynchronous (Start/Stop)
Maximum Output Lines: 8
Aggregate Transmission Rate: 8
Features: Protocol and Code Conversion, Error Control, Terminal Emulation, Terminal-Initiated Applications Switching, Multiplexer/Demultiplexer, Processor-Initiated Dynamic Line Reconfiguration, Local Console (System Control Functions), Automatic Polling, User Programmable, Statistics Collection, Downline Loading of Remote Node
Price: $132,480 to $399,940
Distribution Method: End user
Date First Installed: April 1983

IBM CORP.
3725-2
Processor Function: Front-End Processor, Remote-Line Concentrator
Compatibility Classification: IBM 37XX
Host Compatibility: IBM S/370, IBM 303X, 308X, IBM 43XX
Peripherals Supported: CRT
Maximum Number Input Lines: 24
Input Transmission Mode: Full-Duplex, Half-Duplex
Input Transmission Speeds:
Synchronous: 1,200 bps to 256,000 bps
Asynchronous: 50 bps to 9,600 bps
Input Port Code Supported: Ebcdic, Ascii, X.25
Protocols Supported: BSC, SDLC, X.25, Asynchronous (Start/Stop)
Maximum Output Lines: 2
Aggregate Transmission Rate: 2
Features: Protocol and Code Conversion, Error Control, Terminal Emulation, Terminal-Initiated Applications Switching, Multiplexer/Demultiplexer, Processor-Initiated Dynamic Line Reconfiguration, Local Console (System Control Functions), Automatic Polling, User Programmable, Statistics Collection, Downline Loading of Remote Node
Price: $72,240 to $95,240
Monthly Maintenance Fee: $227
Distribution Method: End user, Third-party
Date First Installed: January 1984

ICOT CORP.
35X SERIES
Processor Function: Remote-Line Concentrator
Compatibility Classification: Non-IBM (General Purpose)
Word Length: 16 bit
Host Compatibility: IBM 370X, IBM 3725, NCR 8325 8655
Peripherals Supported: CRT, Printer
Maximum Number Input Lines: 32
Input Transmission Mode: Full-Duplex, Half-Duplex
Input Transmission Speeds:
Synchronous: 1,200 bps to 19,200 bps
Asynchronous: 300 bps to 9,600 bps
Input Port Code Supported: Ebcdic, Ascii, X.25
Protocols Supported: BSC, SDLC, HDLC, X.25, Asynchronous (Start/Stop), Para, NCR
Maximum Output Lines: 25
Aggregate Transmission Rate: 192 bps
Features: Protocol and Code Conversion, Error Control, Terminal Emulation, Automatic Transmission Speed (Baud Rate) Detection, Terminal-Initiated Applications Switching, Automatic Disconnect, Multiplexer/Demultiplexer, Processor-Initiated Dynamic Line Reconfiguration, Terminal Controller, Autodial/Autoanswer Capabilities, Downline Loading of Remote Node
Price: $3,000 to $25,000
Number Installed to Date: 100 to 1,000
Date First Installed: 1979
(See Vendor Profile Page V-15)

ILEX SYSTEMS DATA SYSTEMS, INC.
COMMUNICATIONS PROCESSOR 1
Processor Function: Front-End Processor
Compatibility Classification: Non-IBM (General Purpose)
Word Length: 8 bit
Host Compatibility: Sigma 9000
Peripherals Supported: CRT, Diagnostic/Test
Maximum Number Input Lines: 256
Input Transmission Mode: Full-Duplex, Half-Duplex
Input Transmission Speeds:
Synchronous: 1,000,000 bps
Asynchronous: 19,200 bps
Input Port Code Supported: Ebcdic, Ascii, X.25, Parallel Binary Data, Baudot
Protocols Supported: SDLC, Synchronous
Maximum Output Lines: 256
Features: Protocol and Code Conversion, Error Control, Terminal Emulation, Automatic Transmission Speed (Baud Rate) Detection, Automatic Disconnect, Processor-Initiated Dynamic Line Reconfiguration, Terminal Controller, Local Console (System Control Functions), Automatic Polling, User Programmable, Autodial/Autoanswer Capabilities, Downline Loading of Remote Node
Price: $3,000
Distribution Method: End-user
(See Vendor Profile Page V-15)

INFORMATION SERVICES CORP.
SMART SYNC MODEM
Processor Function: Remote-Line Concentrator
Compatibility Classification: IBM 37XX
Word Length: 8 bit
Host Compatibility: IBM, DEC VAX, Sperry
Peripherals Supported: CRT, Printer
Input Transmission Mode: Half-Duplex
Input Transmission Speeds:
Asynchronous: 9,600 bps
Input Port Code Supported: Ascii
Protocols Supported: BSC
Features: Automatic Transmission Speed (Baud Rate) Detection, Automatic Polling, User Programmable, Autodial/Autoanswer Capabilities
Price: $6,500
Distribution Method: End user
Number Installed to Date: 1 to 10
(See Vendor Profile Page V-15)

INTEGRATED DESIGN ENGINEERING, INC.
PORT-SAVER
Processor Function: Remote-Line Concentrator
Compatibility Classification: Non-IBM (General Purpose)
Word Length: 8 bit
Host Compatibility: NCR
Peripherals Supported: CRT, Printer, Diagnostic/Test
Maximum Number Input Lines: 16
Input Transmission Mode: Full-Duplex, Half-Duplex
Input Transmission Speeds:
Asynchronous: 50 bps to 19,200 bps
Input Port Code Supported: Ascii
Protocols Supported: IDE Proprietary
Maximum Output Lines: 4
Aggregate Transmission Rate: 192 bps
Features: Terminal Emulation, Terminal-Initiated Applications Switching, Multiplexer/Demultiplexer, Terminal Controller, Automatic Polling, User Programmable, Downline Loading of Remote Node
Price: $1,800
Distribution Method: End user
Number Installed to Date: 100 to 1,000
Date First Installed: 1979
(See Vendor Profile Page V-16)

INTELLIGENT SYSTEMS, INC.
CSX 1684
Processor Function: Front-End Processor, Message Switch, Remote-Line Concentrator
Compatibility Classification: Non-IBM (General Purpose)
Word Length: 8 bit
Peripherals Supported: CRT, Printer, Tape Drive, Disk Drive, PC
Maximum Number Input Lines: 2,048
Input Transmission Mode: Full-Duplex
Input Port Code Supported: Ebcdic, Ascii, X.25, Baudot, Telex
Protocols Supported: BSC, SDLC, HDLC, X.25, Telex
Aggregate Transmission Rate: 9,600 bps
Features: Protocol and Code Conversion, Error Control, Automatic Transmission Speed (Baud Rate) Detection, Terminal-Initiated Applications Switching, Automatic Disconnect, Multiplexer/Demultiplexer, Terminal Controller, Local Console (System Control Functions), Automatic Polling, On-Line Maintenance, Statistics Collection, Autodial and Autoanswer Capabilities, Downline Loading of Remote Node
Price: $60,000
Distribution Method: End user
Number Installed to Date: 1 to 10
Date First Installed: January 1984
(See Vendor Profile Page V-16)

INTERCON RESEARCH CORP.
INTERCON 168A
Processor Function: Front-End Processor
Compatibility Classification: IBM 3270
Word Length: 8 bit
Host Compatibility: DEC VAX, IBM
Peripherals Supported: Printer, Disk Drive, Diagnostic/Test
Maximum Number Input Lines: 1

Input Transmission Mode: Full-Duplex
Input Transmission Speeds:
Synchronous: 56,000 bps
Asynchronous: 19,200 bps
Input Port Code Supported: Ebcdic, Ascii, BCD
Protocols Supported: BSC, SDLC, X.25, Hasp, Scope 200
Maximum Output Lines: 1
Aggregate Transmission Rate: 1
Aggregate Transmission Rate: 560 bps
Features: Protocol and Code Conversion, Error Control, Terminal Emulation, Automatic Disconnect, Local Console (System Control Functions), Automatic Polling, Downline Loading of Remote Node
Price: $1,250 to $4,995
Distribution Method: OEM
Number Installed to Date: 10 to 50
Date First Installed: 1983
(See Vendor Profile Page V-16)

INTERLAN, INC.
IS1010 UNIBUS ETHERNET CTLR
Processor Function: Front-End Processor, Message Switch, Distributed Processing Nodes
Compatibility Classification: Ethernet
Word Length: 16 bit
Host Compatibility: DEC VAX, DEC PDP-11
Peripherals Supported: Diagnostic/Test
Input Transmission Mode: Full-Duplex
Input Transmission Speeds:
Synchronous: Up to 2,500,000 bps
Asynchronous: UP to 2,500,000 bps
Input Port Code Supported: Ascii
Protocols Supported: CSMA/CD
Maximum Output Lines: 1
Aggregate Transmission Rate: 1
Aggregate Transmission Rate: 25,000 bps
Features: Protocol and Code Conversion, Error Control, Automatic Disconnect, Multiplexer/Demultiplexer, Terminal Controller, Local Console (System Control Functions), On-Line Maintenance, Statistics Collection, Downline Loading of Remote Node
Price: $3,000
Distribution Method: OEM
Number Installed to Rate: 1,000 to 10,000
Date First Installed: January 1982
(See Vendor Profile Page V-16)

ITEK COMPOSITION SYSTEMS
QUADRITEK SERIES IDC
Processor Function: Front-End Processor
Compatibility Classification: Non-IBM (General Purpose)
Word Length: 8 bit
Peripherals Supported: Printer
Maximum Number Input Lines: 1
Input Transmission Mode: Full-Duplex, Half-Duplex
Input Transmission Speeds:
Asynchronous: 50 bps to 9,600 bps
Input Port Code Supported: Ascii
Protocols Supported: Asynchronous (Start/Stop)
Maximum Output Lines: 1
Aggregate Transmission Rate: 1
Features: Protocol and Code Conversion, Terminal Controller, User Programmable, Operation Control String Translation
Price: $895 to $2,495
Distribution Method: End user
Number Installed to Date: 100 to 1,000
Date First Installed: 1979
(See Vendor Profile Page V-17)

ITT TELECOM PRODUCTS, INC.
N540
Processor Function: Host Independent
Compatibility Classification: Non-IBM (General Purpose)
Word Length: 8 bit
Peripherals Supported: CRT, Printer, Tape Drive, Disk Drive, Diagnostic/Test
Input Transmission Mode: Full-Duplex
Input Transmission Speeds:
Synchronous: 64,000 bps
Input Port Code Supported: Ascii, X.25, Parallel Binary Data
Protocols Supported: BSC, UDLC
Aggregate Transmission Rate: 15,000 bps
Features: Protocol and Code Conversion, Error Control, Automatic Transmission Speed (Baud Rate) Detection, Automatic Disconnect, Multiplexer/Demultiplexer, Processor-Initiated Dynamic Line Reconfiguration, Terminal Controller, Local Console (System Control Functions), Automatic Polling, On-Line Maintenance, Statistics Collection
Distribution Method: End user
Number Installed to Date: 100 to 1,000
Date First Installed: 1978
(See Vendor Profile Page V-17)

JC SYSTEMS
LINK 81
Processor Function: Front-End Processor, Remote-Line Concentrator
Compatibility Classification: Non-IBM (General Purpose)
Word Length: 8 bit
Host Compatibility: JC Systems
Peripherals Supported: CRT, Printer, Diagnostic/Test
Maximum Number Input Lines: 4
Input Transmission Mode: Full-Duplex, Half-Duplex
Input Transmission Speeds:
Synchronous: 1,200 bps to 110,000 bps
Asynchronous: 50 bps to 110,000 bps
Input Port Code Supported: Ebcdic, Ascii, X.25, Parallel Binary Data
Protocols Supported: BSC, SDLC, ADCCP, HDLC, BDLC, X.25, X.27, Asynchronous (Start/Stop)
Maximum Output Lines: 1
Aggregate Transmission Rate: 20,000 bps
Features: Protocol and Code Conversion, Error Control, Terminal Emulation, Automatic Transmission Speed (Baud Rate) Detection, Automatic Disconnect, Processor-Initiated Dynamic Line Reconfiguration, Terminal Controller, Local Console (System Control Functions), Automatic Polling, User Programmable, On-Line Maintenance, Statistics Collection, Autodial/Autorenewer Capabilities, Downline Loading of Remote Node
Monthly Maintenance Fee: $20
Distribution Method: Third-party
Date First Installed: January 1984
(See Vendor Profile Page V-17)

LEECOM SYSTEMS, INC.
CMC-4/8/32
Processor Function: Front-End Processor
Compatibility Classification: IBM 270X
Word Length: 8 bit
Host Compatibility: IBM 360, IBM 370, IBM 303X
Peripherals Supported: CRT, Printer, Diagnostic/Test
Maximum Number Input Lines: 32
Input Transmission Mode: Half-Duplex
Input Port Code Supported: Ebcdic, Ascii
Protocols Supported: BSC, Asynchronous (Start/Stop)
Maximum Output Lines: 1
Aggregate Transmission Rate: 4,000 bps
Features: Error Control, Terminal Emulation, Automatic Transmission Speed (Baud Rate) Detection, Automatic Disconnect, Automatic Polling, On-Line Maintenance, Autodial/Autorenewer Capabilities
Price: $14,000 to $60,000
Distribution Method: End user
Number Installed to Date: 100 to 1,000
(See Vendor Profile Page V-18)

LEECOM SYSTEMS, INC.
DNP
Processor Function: Front-End Processor, Message Switch, Remote-Line Concentrator, Host Independent, Distributed Processing Nodes
Compatibility Classification: IBM 37XX
Word Length: 8 bit, 16 bit
Host Compatibility: IBM
Peripherals Supported: CRT
Input Transmission Mode: Full-Duplex, Half-Duplex
Input Transmission Speeds:
Synchronous: 56,000 bps
Input Port Code Supported: Ebcdic, Ascii, X.25
Protocols Supported: BSC, SDLC, ADCCP, HDLC, BDLC, UDLC, X.25
Maximum Output Lines: 32
Aggregate Transmission Rate: 240,000 bps
Features: Protocol and Code Conversion, Error Control, Terminal Emulation, Automatic Transmission Speed (Baud Rate) Detection, Terminal-Initiated Applications Switching, Automatic Disconnect, Multiplexer/Demultiplexer, Processor-Initiated Dynamic Line Reconfiguration, Local Console (System Control Functions), Automatic Polling, On-Line Maintenance, Statistics Collection, Autodial/Autorenewer Capabilities, Downline Loading of Remote Node
Price: $30,000 to $300,000
Distribution Method: End user
Number Installed to Date: 100 to 1,000
Date First Installed: 1981

SI/A-COM DCC, INC.
CP8000 SERIES 8
Processor Function: Distributed Processing Nodes
Compatibility Classification: Packet Switching
Word Length: 16 bit
Peripherals Supported: CRT, Disk Drive, Diagnostic/Test
Input Transmission Mode: Full-Duplex
Input Transmission Speeds:
Synchronous: 64,000 bps
Asynchronous: 384,000 bps
Input Port Code Supported: Ebcdic, Ascii, X.25
Protocols Supported: X.25, X.75
Maximum Output Lines: 2,000
Aggregate Transmission Rate: 2,000
Features: Protocol and Code Conversion, Processor-Initiated Dynamic Line Reconfiguration, Local Console (System Control Functions), User Programmable, On-Line Maintenance, Statistics Collection, Autodial/Autorenewer Capabilities, Downline Loading of Remote Node
Price: $20,000 to $300,000
(See Vendor Profile Page V-18)

MEMOREX CORP.
1270 TCU
Processor Function: Front-End Processor
Compatibility Classification: IBM 270X
Word Length: 8 bit
Host Compatibility: IBM 370, IBM 33XX, IBM 30
Peripherals Supported: CRT, Printer, Diagnostic/Test
Maximum Number Input Lines: 2
Input Transmission Mode: Full-Duplex, Half-Duplex
Input Transmission Speeds:
Synchronous: 56,000 bps
Asynchronous: 56,000 bps
Input Port Code Supported: Ebcdic, Ascii, Baudot, PTTC, TWX, BCD
Protocols Supported: BSC, Asynchronous (Start/Stop)
Maximum Output Lines: 96
Aggregate Transmission Rate: 96
Aggregate Transmission Rate: 1,800 bps
Features: Protocol and Code Conversion, Automatic Transmission Speed (Baud Rate) Detection, Terminal-Initiated Applications Switching, Automatic Disconnect, Multiplexer/Demultiplexer, Terminal Controller, Automatic Polling, On-

Line Maintenance, Autodial/Autoanswer Capabilities
Distribution Method: End user
Date First Installed: 1970
(See Vendor Profile Page V-19)

MICOM SYSTEMS, INC.
MICRO 800/X.25 CONCENTRATOR PAD
Processor Function: Remote-Site Concentrator, Host Independent
Compatibility Classification: X.25 PAD
Word Length: 8 bit
Host Compatibility: IBM, Prime Primenet, CDC 2551-NOS
Peripherals Supported: CRT, Printer
Maximum Number Input Lines: 24
Input Transmission Mode: Half-Duplex, Echoplex
Input Transmission Speeds:
Synchronous: 1,200 bps to 9,600 bps
Asynchronous: 50 bps to 9,600 bps
Input Port Code Supported: Ebcdic, Baudot
Maximum Output Lines: 1
Aggregate Transmission Rate: 1
Aggregate Transmission Rate: 768 bps
Features: Protocol and Code Conversion, Error Control, Terminal Emulation, Automatic Transmission Speed (Baud Rate) Detection, Terminal-Initiated Applications Switching, Automatic Disconnect, Multiplexer/Demultiplexer, Terminal Controller, Local Console (System Control Functions), Statistics Collection, Autodial/Autoanswer Capabilities, Downline Loading of Remote Node
Price: $2,050 to $4,200
Distribution Method: Third-party
Number Installed to Date: 1,000 to 10,000
Date First Installed: November 1982
(See Vendor Profile Page V-19)

MICROCOSYS, INC.
MCS-30
Processor Function: Front-End Processor
Compatibility Classification: Honeywell Datanet
Word Length: 8 bit
Host Compatibility: Honeywell DIA, DTSS
Peripherals Supported: Ascii
Maximum Number Input Lines: 32
Input Transmission Mode: Half-Duplex
Input Transmission Speeds:
Asynchronous: 1,200 bps to 38,400 bps
Input Port Code Supported: Ascii
Protocols Supported: Ascii
Maximum Output Lines: 32
Aggregate Transmission Rate: 384 bps
Features: Error Control, Automatic Transmission Speed (Baud Rate) Detection, Automatic Disconnect, Multiplexer/Demultiplexer, On-Line Maintenance; Downline Loading of Remote Node
Price: $25,000
Monthly Maintenance Fee: $200
Distribution Method: End user
Number Installed to Date: 10 to 50
Date First Installed: November 1977
(See Vendor Profile Page V-19)

MICRODATA CORP.
5780
Processor Function: Front-End Processor
Compatibility Classification: IBM 37XX
Word Length: 8 bit
Host Compatibility: IBM 2780, IBM 3780
Peripherals Supported: CRT, Printer
Maximum Number Input Lines: 1
Input Transmission Mode: Half-Duplex
Input Transmission Speeds:
Asynchronous: 19,200 bps
Protocols Supported: BSC
Maximum Output Lines: 1
Aggregate Transmission Rate: 192 bps
Features: Protocol and Code Conversion, Error Control, Terminal Emulation, Automatic Disconnect, Local Console (System Control Functions), On-Line Maintenance, Autodial/Autoanswer Capabilities
Price: $5,100
Distribution Method: End user
Number Installed to Date: 100 to 1,000
Date First Installed: June 1981
(See Vendor Profile Page V-19)

MICRODATA CORP.
NETWORK SYSTEM
Processor Function: Host Independent
Compatibility Classification: Non-IBM (General Purpose)
Word Length: 16 bit
Host Compatibility: Microdata, IBM
Peripherals Supported: CRT, Printer
Maximum Number Input Lines: 1,000
Input Transmission Mode: Half-Duplex
Input Transmission Speeds:
Asynchronous: 9,600 bps
Input Port Code Supported: Ebcdic, Ascii, X.25, Parallel Binary Data, Baudot, Transparent
Protocols Supported: BSC, SDLC, X.25, Asynchronous (Start/Stop)
Maximum Output Lines: 44
Aggregate Transmission Rate: 44
Features: Protocol and Code Conversion, Error Control, Automatic Transmission Speed (Baud Rate) Detection, Terminal-Initiated Applications Switching, Automatic Disconnect, Multiplexer/Demultiplexer, Local Console (System Control Functions), User Programmable, Statistics Collection, Downline Loading of Remote Node
Price: $15,000 to $20,000

MODCOMP PLUS, INC.
BRITE ONE
Processor Function: Distributed Processing Nodes
Compatibility Classification: Burroughs
Word Length: 8 bit
Host Compatibility: Burroughs 6800
Peripherals Supported: CRT, Printer, Diagnostic/Test
Maximum Number Input Lines: 1
Input Transmission Mode: Full-Duplex, Half-Duplex
Input Transmission Speeds:
Synchronous: 19,200 bps
Asynchronous: 19,200 bps
Input Port Code Supported: Ascii
Protocols Supported: Asynchronous (Start/Stop), Synchronous Pole Sheet
Maximum Output Lines: 2
Aggregate Transmission Rate: 192 bps
Features: Protocol and Code Conversion, Error Control, Terminal Emulation, Terminal-Initiated Applications Switching, Terminal Controller, Automatic Polling, Autodial/Autoanswer Capabilities
Price: $1,280
Monthly Maintenance Fee: $10
Distribution Method: Third-party
Number Installed to Date: 1,000 to 10,000
Date First Installed: June 1981
(See Vendor Profile Page V-20)

MODCOMP PLUS, INC.
BRITE ONE
Processor Function: Distributed Processing Nodes
Compatibility Classification: IBM 270X
Word Length: 8 bit
Host Compatibility: IBM 6100, IBM 4300, IBM 3300
Peripherals Supported: CRT, Printer, Diagnostic/Test
Maximum Number Input Lines: 2
Input Transmission Mode: Full-Duplex, Half-Duplex
Input Transmission Speeds:
Synchronous: 19,200 bps
Asynchronous: 192,000 bps
Input Port Code Supported: Ebcdic, Ascii, Parallel Binary Data
Protocols Supported: BSC, SDLC, HDLC, Asynchronous (Start/Stop)
Maximum Output Lines: 3
Aggregate Transmission Rate: 3
Aggregate Transmission Rate: 192 bps
Features: Protocol and Code Conversion, Error Control, Terminal Emulation, Terminal-Initiated Applications Switching, Automatic Disconnect, Terminal Controller, Local Console (System Control Functions), Automatic Polling, User Programmable, On-Line Maintenance, Autodial/Autoanswer Capabilities, Downline Loading of Remote Node
Price: $3,200
Monthly Maintenance Fee: $25
Distribution Method: Third-party
Number Installed to Date: 10 to 50
Date First Installed: June 1983

MODULAR COMPUTER SYSTEMS, INC. (MODCOMP)
CL 8/45
Processor Function: Front-End Processor, Message Switch, Remote-Line Concentrator, Host Independent, Distributed Processing Nodes
Compatibility Classification: Non-IBM (General Purpose)
Word Length: 16 bit
Host Compatibility: IBM 360, 370, CDC Cyber, IBM 3033X
Peripherals Supported: CRT, Printer, Tape Drive, Disk Drive, Diagnostic/Test, IBM Select
Maximum Number Input Lines: 256
Input Transmission Mode: Full-Duplex
Input Transmission Speeds:
Synchronous: 1,200 bps to 250,000 bps
Asynchronous: 50 bps to 19,200 bps
Input Port Code Supported: Ebcdic, Ascii, X.25, Baudot, Mexrat
Protocols Supported: BSC, SDLC, ADCCP, HDLC, X.25, Asynchronous (Start/Stop)
Maximum Output Lines: 256
Aggregate Transmission Rate: 14,500 bps
Features: Protocol and Code Conversion, Error Control, Terminal Emulation, Terminal-Initiated Applications Switching, Automatic Disconnect, Multiplexer/Demultiplexer, Processor-Initiated Dynamic Line Reconfiguration, Local Console (System Control Functions), Automatic Polling, User Programmable, On-Line Maintenance, Statistics Collection, Autodial/Autoanswer Capabilities, Downline Loading of Remote Node
Price: $60,000
Monthly Maintenance Fee: $800
Distribution Method: OEM
Number Installed to Date: 100 to 1,000
Date First Installed: 1982
(See Vendor Profile Page V-20)

MODULAR COMPUTER SYSTEMS, INC. (MODCOMP)
CL 8/75
Processor Function: Front-End Processor, Message Switch, Remote-Line Concentrator, Host Independent, Distributed Processing Nodes
Compatibility Classification: Non-IBM (General Purpose)
Word Length: 16 bit
Host Compatibility: IBM 360,370, CDC Cyber, IBM 3033X
Peripherals Supported: CRT, Printer, Tape Drive, Disk Drive, Diagnostic/Test, IBM Select
Maximum Number Input Lines: 256
Input Transmission Mode: Full-Duplex
Input Transmission Speeds:
Synchronous: 1,200 bps to 25,000 bps
Asynchronous: 50 bps to 19,200 bps
Input Port Code Supported: Ebcdic, Ascii, X.25, Baudot, Mexrat
Protocols Supported: BSC, SDLC, ADCCP, HDLC, X.25, Asynchronous (Start/Stop)

Communications Processors

Maximum Output Lines: 256
Aggregate Transmission Rate: 16,000 bps
Features: Protocol and Code Conversion, Error Control, Terminal Emulation, Terminal-Initiated Applications Switching, Automatic Disconnect, Multiplexer/Demultiplexer, Processor-Initiated Dynamic Line Reconfiguration, Local Console (System Control Functions), Automatic Polling, User Programmable, On-Line Maintenance, Statistics Collection, Autodial/Autoanswer Capabilities, Downline Loading of Remote Node
Price: $150,000
Monthly Maintenance Fee: $700
Distribution Method: OEM
Number Installed to Date: 100 to 1,000
Date First Installed: 1982

MULTITRONICS, INC.
RDS 1000
Processor Function: Message Switch, Remote-Line Concentrator, Host Independent, Distributed Processing Nodes
Compatibility Classification: Non-IBM (General Purpose)
Host Compatibility: IBM PC-XT, Apple, DEC PDP-11
Peripherals Supported: CRT, Printer, Tape Drive, Disk Drive, Diagnostic/Test
Input Transmission Mode: Full-Duplex, Half-Duplex
Input Transmission Speeds:
Synchronous: 1,200 bps
Asynchronous: 4,800 bps
Input Port Code Supported: Ascii, X.25
Protocols Supported: BSC, SDLC, ADCCP, HDLC, BDLC, UDLC, X.25, Bold, X.27, Asynchronous (Start/Stop), ICP
Maximum Output Lines: 128
Features: Protocol and Code Conversion, Error Control, Terminal Emulation, Terminal-Initiated Applications Switching, Automatic Disconnect, Multiplexer/Demultiplexer, Processor-Initiated Dynamic Line Reconfiguration, Terminal Controller, User Programmable, On-Line Maintenance, Statistics Collection, Autodial/Autoanswer Capabilities, Downline Loading of Remote Node
Price: $1,500
Distribution Method: End user
Number Installed to Date: 100 to 1,000
Date First Installed: 1980
(See Vendor Profile Page V-20)

MULTITRONICS, INC.
SVR 700
Processor Function: Message Switch, Remote-Line Concentrator, Host Independent, Distributed Processing Nodes
Compatibility Classification: Non-IBM (General Purpose)
Host Compatibility: IBM PC-XT, Apple, DEC PDP-11
Peripherals Supported: CRT, Printer, Tape Drive, Disk Drive, Diagnostic/Test
Input Transmission Mode: Full-Duplex, Half-Duplex
Input Transmission Speeds:
Synchronous: 1,200 bps
Asynchronous: 4,800 bps
Input Port Code Supported: Ascii, X.25
Protocols Supported: BSC, SDLC, ADCCP, HDLC, BDLC, UDLC, X.25, Bold, X.27, Asynchronous (Start/Stop), ICP
Maximum Output Lines: 10
Features: Protocol and Code Conversion, Error Control, Terminal Emulation, Terminal-Initiated Applications Switching, Automatic Disconnect, Multiplexer/Demultiplexer, Processor-Initiated Dynamic Line Reconfiguration, Terminal Controller, Automatic Polling, User Programmable, On-Line Maintenance, Statistics Collection, Autodial/Autoanswer Capabilities, Downline Loading of Remote Node
Price: $1,500
Distribution Method: End user
Number Installed to Date: 100 to 1,000
Date First Installed: 1980

NCR CORTEN, INC.
3690
Processor Function: Front-End Processor, Message Switch, Remote-Line Concentrator, Distributed Processing Nodes
Compatibility Classification: IBM 37XX
Word Length: 32 bit
Host Compatibility: IBM 360/370, IBM 303X, 43XX, IBM 308X
Input Transmission Mode: Full-Duplex, Half-Duplex
Input Port Code Supported: Ebcdic, Ascii, X.25
Protocols Supported: BSC, SDLC, HDLC, X.25, Asynchronous (Start/Stop)
Maximum Output Lines: 2
Aggregate Transmission Rate: 2
Features: Protocol and Code Conversion, Error Control, Automatic Transmission Speed (Baud Rate) Detection, Terminal-Initiated Applications Switching, Automatic Disconnect, Processor-Initiated Dynamic Line Reconfiguration, Local Console (System Control Functions), Automatic Polling, User Programmable, Statistics Collection, Autodial/Autoanswer Capabilities, Downline Loading of Remote Node
Distribution Method: End user
Number Installed to Date: 1,000 to 10,000
Date First Installed: 1975
(See Vendor Profile Page V-21)

NCR CORTEN, INC.
3679 MBS
Processor Function: Front-End Processor, Message Switch, Remote-Line Concentrator, Distributed Processing Nodes
Compatibility Classification: IBM 37XX
Word Length: 32 bit
Host Compatibility: IBM 360/370, IBM 303X, 43XX, 308X
Input Transmission Mode: Full-Duplex, Half-Duplex
Input Port Code Supported: Ebcdic, Ascii, X.25
Protocols Supported: BSC, SDLC, HDLC, X.25, Asynchronous (Start/Stop)
Maximum Output Lines: 4
Aggregate Transmission Rate: 4
Features: Protocol and Code Conversion, Error Control, Automatic Transmission Speed (Baud Rate) Detection, Terminal-Initiated Applications Switching, Automatic Disconnect, Processor-Initiated Dynamic Line Reconfiguration, Local Console (System Control Functions), Automatic Polling, User Programmable, Statistics Collection, Autodial/Autoanswer Capabilities, Downlined Loading of Remote Node
Distribution Method: End user
Number Installed to Date: 1,000 to 10,000
Date First Installed: 1972

NCR CORTEN, INC.
3690
Processor Function: Front-End Processor, Message Switch, Remote-Line Concentrator, Distributed Processing Nodes
Compatibility Classification: IBM 37XX
Word Length: 64 bit
Host Compatibility: IBM 360/370, IBM 303X 43XX, IBM 308X
Input Transmission Mode: Full-Duplex, Half-Duplex
Input Port Code Supported: Ebcdic, Ascii, X.25
Protocols Supported: BSC, SDLC, HDLC, X.25, Asynchronous (Start/Stop)
Maximum Output Lines: 8
Aggregate Transmission Rate: 8
Features: Protocol and Code Conversion, Error Control, Automatic Transmission Speed (Baud Rate) Detection, Terminal-Initiated Applications Switching, Automatic Disconnect, Processor-Initiated Dynamic Line Reconfiguration, Local Console (System Control Functions), Automatic Polling, Statistics Collection, Autodial/Autoanswer Capabilities, Downlined Loading of Remote Node
Distribution Method: End user
Number Installed to Date: 1,000 to 10,000
Date First Installed: 1978

NOAKES DATA COMMUNICATIONS, INC.
TRANSACTION CONCENTRATOR
Processor Function: Front-End Processor
Compatibility Classification: IBM 270X
Word Length: 8 bit
Host Compatibility: Datapoint, TI 990
Peripherals Supported: CRT, Printer, Disk Drive
Maximum Number Input Lines: 32
Input Transmission Mode: Full-Duplex, Half-Duplex
Input Transmission Speeds:
Synchronous: 19,200 bps
Asynchronous: 19,200 bps
Input Port Code Supported: Ebcdic, Ascii
Protocols Supported: SDLC, Asynchronous (Start/Stop)
Maximum Output Lines: 32
Aggregate Transmission Rate: 32
Features: Protocol and Code Conversion, Error Control, Automatic Transmission Speed (Baud Rate) Detection
Price: $4,500
Distribution Method: End user
Number Installed to Date: 10 to 50
Date First Installed: 1982
(See Vendor Profile Page V-22)

NORTHERN TELECOM
SSC
Processor Function: Front-End Processor, Message Switch, Remote-Line Concentrator, Host Independent, Distributed Processing Nodes
Compatibility Classification: Model-Independent
Word Length: 8 bit
Peripherals Supported: CRT, Printer, Tape Drive, Disk Drive, Diagnostic/Test, Data Capture
Maximum Number Input Lines: 40
Input Transmission Mode: Full-Duplex
Input Transmission Speeds:
Synchronous: 110 bps to 19,200 bps
Asynchronous: 110 bps to 9,600 bps
Input Port Code Supported: Ebcdic, Ascii, X.25, Parallel Binary Data
Protocols Supported: BSC, SDLC, HDLC, X.25, Asynchronous (Start/Stop)
Maximum Output Lines: 16
Aggregate Transmission Rate: 16
Features: Protocol and Code Conversion, Error Control, Automatic Transmission Speed (Baud Rate) Detection, Terminal-Initiated Applications Switching, Automatic Disconnect, Multiplexer/Demultiplexer, Processor-Initiated Dynamic Line Reconfiguration, Terminal Controller, Local Console (System Control Functions), Automatic Polling, On-Line Maintenance, Statistics Collection, Autodial/Autoanswer Capabilities, Downline Loading of Remote Node, Internal Storage
Price: $17,000 to $125,000
Distribution Method: End user, OEM
Number Installed to Date: 10 to 50
Date First Installed: November 1982
(See Vendor Profile Page V-22)

NORTHERN TELECOM, INC.
28X SERIES
Processor Function: Remote-Line Concentrator
Compatibility Classification: IBM 270X
Word Length: 8 bit
Host Compatibility: IBM
Peripherals Supported: CRT,

Printer, Diagnostic/Test, Asynchronous/Bisynchronous Devices
Maximum Number Input Lines: 1
Input Transmission Mode: Full-Duplex
Input Transmission Speeds:
Synchronous: 9,600 bps
Input Port Code Supported: Ebcdic, Ascii
Protocols Supported: BSC, SDLC, IBM SNA
Maximum Output Lines: 1
Aggregate Transmission Rate: 96 bps
Features: Protocol and Code Conversion, Error Control, Terminal Emulation, Automatic Transmission Speed (Baud Rate) Detection, Terminal Controller, Local Console (System Control Functions), Automatic Polling, User Programmable, On-Line Maintenance, Statistics Collection
Distribution Method: End user
Number Installed to Date: 1,000 to 10,000
Date First Installed: 1980

NORTHERN TELECOM, INC.
SX6
Processor Function: Host Independent, Distributed Processing Nodes
Compatibility Classification: Non-IBM (General Purpose)
Word Length: 8 bit
Host Compatibility: IBM Mainframes, CDC Mainframes, Burroughs Mainframes
Peripherals Supported: CRT, Printer, Tape Drive, Disk Drive, Diagnostic/Test, Cardpunches
Maximum Number Input Lines: 2
Input Transmission Mode: Full-Duplex, Half-Duplex
Input Transmission Speeds:
Synchronous: 9,600 bps
Asynchronous: 9,600 bps
Input Port Code Supported: Ascii, Parallel Binary Data, Baudot
Protocols Supported: BSC, SDLC, Asynchronous (Start/Stop)
Maximum Output Lines: 2
Aggregate Transmission Rate: 96 bps
Features: Protocol and Code Conversion, Error Control, Terminal Emulation, Automatic Transmission Speed (Baud Rate) Detection, Terminal-Initiated Applications Switching, Automatic Disconnect, Multiplexer/Demultiplexer, Terminal Controller, Local Console (System Control Functions), Automatic Polling, User Programmable, On-Line Maintenance, Statistics Collection, Autodial/Autoanswer Capabilities
Price: $10,000 to $30,000
Distribution Method: End user
Number Installed to Date: 1,000 to 10,000
Date First Installed: June 1981

NORTHERN TELECOM, INC.
SX8
Processor Function: Host Independent, Distributed Processing Nodes
Compatibility Classification: Non-IBM (General Purpose)
Word Length: 8 bit
Host Compatibility: IBM 370, CDC Mainframes, Burroughs Mainframes
Peripherals Supported: CRT, Printer, Tape Drive, Disk Drive, Diagnostic/Test, Cardpunches
Maximum Number Input Lines: 8
Input Transmission Mode: Full-Duplex, Half-Duplex
Input Transmission Speeds:
Synchronous: 9,600 bps
Asynchronous: 9,600 bps
Input Port Code Supported: Ascii, Parallel Binary Data, Baudot
Protocols Supported: BSC, SDLC, Asynchronous (Start/Stop)
Maximum Output Lines: 8
Aggregate Transmission Rate: 96 bps
Features: Protocol and Code Conversion, Error Control, Terminal Emulation, Automatic Transmission Speed (Baud Rate) Detection, Terminal-Initiated Applications Switching, Automatic Disconnect, Multiplexer/Demultiplexer, Terminal Controller, Local Console (System Control Functions), Automatic Polling, User Programmable, On-Line Maintenance, Statistics Collection, Autodial and Autoanswer Capabilities
Price: $15,000 to $50,000
Distribution Method: End user
Number Installed to Date: 100 to 1,000
Date First Installed: April 1983

NORTHERN TELECOM, INC.
SX6
Processor Function: Host Independent, Distributed Processing Nodes
Compatibility Classification: Non-IBM (General Purpose)
Word Length: 8 bit
Host Compatibility: IBM 370, CDC Mainframes, Burroughs Mainframes
Peripherals Supported: CRT, Printer, Tape Drive, Disk Drive, Diagnostic/Test, Cardpunches
Maximum Number Input Lines: 14
Input Transmission Mode: Full-Duplex, Half-Duplex
Input Transmission Speeds:
Synchronous: 9,600 bps
Asynchronous: 9,600 bps
Input Port Code Supported: Ascii, Parallel Binary Data, Baudot
Protocols Supported: BSC, SDLC, Asynchronous (Start/Stop)
Maximum Output Lines: 14
Aggregate Transmission Rate: 96 bps
Features: Protocol and Code Conversion, Error Control, Terminal Emulation, Automatic Transmission Speed (Baud Rate) Detection, Terminal-Initiated Applications Switching, Automatic Disconnect, Multiplexer/Demultiplexer, Terminal Controller, Local Console (System Control Functions), Automatic Polling, User Programmable, On-Line Maintenance, Statistics Collection, Autodial and Autoanswer Capabilities
Price: $50,000 to $200,000
Distribution Method: End user
Date First Installed: June 1980

NU DATA CORP.
720 COMMUNICATIONS PROCESSOR
Processor Function: Front-End Processor, Message Switch, Host Independent
Compatibility Classification: Non-IBM (General Purpose)
Word Length: 8 bit
Peripherals Supported: CRT
Maximum Number Input Lines: 4
Input Transmission Mode: Full-Duplex
Input Transmission Speeds:
Synchronous: 56,000 bps
Asynchronous: 50 bps to 19,200 bps
Input Port Code Supported: Ascii, Baudot
Protocols Supported: SDLC
Maximum Output Lines: 4
Aggregate Transmission Rate: 4
Features: Protocol Conversion, Code Conversion, Error Control, Terminal Emulation and Terminal Controller
Price: $1,700
Distribution Method: Third-party
Date First Installed: 1982
(See Vendor Profile Page V-22)

PARADYNE CORP.
PDNET
Processor Function: Message Switch, Remote-Line Concentrator, Host Independent, Distributed Processing Nodes
Compatibility Classification: Non-IBM (General Purpose)
Word Length: 16 bit
Host Compatibility: IBM 360/370, IBM 303X, IBM 308X, 43XX
Peripherals Supported: CRT, Printer, Tape Drive, Diagnostic/Test
Maximum Number Input Lines: 10
Input Transmission Mode: Full-Duplex
Input Transmission Speeds:
Synchronous: 56,000 bps
Asynchronous: 19,200 bps
Input Port Code Supported: Ebcdic, Ascii, X.25, Parallel Binary Data
Protocols Supported: SDLC, X.25, Asynchronous (Start/Stop)
Maximum Output Lines: 10
Aggregate Transmission Rate: 3,000 bps
Features: Protocol and Code Conversion, Error Control, Terminal Emulation, Automatic Transmission Speed (Baud Rate) Detection, Terminal-Initiated Applications Switching, Automatic Disconnect, Multiplexer/Demultiplexer, Terminal Controller, Local Console (System Control Functions), Automatic Polling, On-Line Maintenance, Statistics Collection, Autodial/Autoanswer Capabilities, Downline Loading of Remote Node, Self Configuring
Price: $25,000
Distribution Method: End user
Number Installed to Date: 1,000 to 10,000
Date First Installed: 1978

PARADYNE CORP.
SYSTEM 8400
Processor Function: Distributed Processing Nodes
Compatibility Classification: Non-IBM (General Purpose)
Word Length: 16 bit
Host Compatibility: IBM 370, Paradyne 8000
Peripherals Supported: CRT, Printer, Tape Drive, Disk Drive, Diagnostic/Test
Maximum Number Input Lines: 28
Input Transmission Mode: Full-Duplex
Input Transmission Speeds:
Synchronous: 19,200 bps
Asynchronous: 9,600 bps
Input Port Code Supported: Ebcdic, Ascii
Protocols Supported: BSC, SDLC, HDLC, Asynchronous (Start/Stop), Paradyne Planet
Maximum Output Lines: 8
Features: Protocol and Code Conversion, Error Control, Terminal Emulation, Terminal-Initiated Applications Switching, Automatic Disconnect, Multiplexer/Demultiplexer, Terminal Controller, Local Console (System Control Functions), Automatic Polling, User Programmable, On-Line Maintenance, Statistics Collection, Autodial/Autoanswer Capabilities, Downline Loading of Remote Node
Price: $30,000
Monthly Maintenance Fee: $185
Distribution Method: End user
Number Installed to Date: 1,000 to 10,000
Date First Installed: 1981

PERIPHONICS CORP.
T-COMM
Processor Function: Front-End Processor, Message Switch, Remote-Line Concentrator, Host Independent, Distributed Processing Nodes
Compatibility Classification: Per Choice and Multiple
Word Length: 16 bit
Peripherals Supported: CRT, Printer, Tape Drive, Disk Drive, Diagnostic/Test, Acoustic Coupler
Maximum Number Input Lines: 416
Input Transmission Mode: Half-Duplex
Input Transmission Speeds:
Synchronous: 9,600 bps
Asynchronous: 19,200 bps
Input Port Code Supported: Ebcdic, Ascii, X.25, Baudot
Protocols Supported: BSC, SDLC, ADCCP, SDLC, X.27, Asynchronous (Start/Stop)
Maximum Output Lines: 416
Features: Protocol and Code Conversion, Error Control, Terminal Emulation, Terminal-Initiated Applications Switching, Automatic Disconnect, Multiplexer/Demultiplexer, Processor-Initiated Dynamic Line Reconfiguration, Terminal Controller, Local Console (System Control

Communications Processors

Functions), Automatic Polling, User Programmable, On-Line Maintenance, Statistics Collection, Autodial/Autoanswer Capabilities, Downline Loading of Remote Node
Price: $60,000 to $120,000
Distribution Method: End user
Number Installed to Date: 100 to 1,000
Date First Installed: 1972
(See Vendor Profile Page V-23)

PERSYST, INC.
DCP/86
Processor Function: Front-End Processor, Distributed Processing Nodes
Compatibility Classification: IBM General Purpose
Word Length: 16 bit
Host Compatibility: IBM
Peripherals Supported: Printer
Maximum Number Input Lines: 4
Input Transmission Mode: Full-Duplex, Half-Duplex
Input Transmission Speeds:
Synchronous: 38,400 bps
Asynchronous: 38,400 bps
Input Port Code Supported: Ebcdic, Ascii
Protocols Supported: BSC, SDLC, HDLC, Asynchronous (Start/Stop)
Maximum Output Lines: 4
Features: Protocol and Code Conversion, Error Control, Automatic Transmission Speed (Baud Rate) Detection, Automatic Disconnect, Processor-Initiated Dynamic Line Reconfiguration, Terminal Controller, Local Console (System Control Functions), Automatic Polling, User Programmable, Autodial/Autoanswer Capabilities, Downline Loading of Remote Node
Price: $2,000
Distribution Method: End user, OEM, Third-party
(See Vendor Profile Page V-23)

PERSYST, INC.
PC/3270
Processor Function: Front-End Processor
Compatibility Classification: IBM 3270
Word Length: 8 bit
Host Compatibility: IBM PC, TI Professional
Peripherals Supported: Printer, Disk Drive
Maximum Number Input Lines: 1
Input Transmission Mode: Half-Duplex
Input Port Code Supported: Ebcdic
Maximum Output Lines: 1
Features: Error Control, Terminal Emulation, Terminal Controller, Local Console (System Control Functions), Automatic Polling, User Programmable, On-Line Maintenance
Price: $995
Distribution Method: End user, OEM, Third-party

PHILIPS ELECTRONIC INSTRUMENTS, INC.
FLEXPAC PAD
Processor Function: Front-End Processor, Host Independent
Compatibility Classification: Non-IBM (General Purpose)
Word Length: 8 bit
Peripherals Supported: Tape Drive, Diagnostic/Test
Input Transmission Mode: Full-Duplex
Input Transmission Speeds:
Asynchronous: 50 bps to 9,600 bps
Input Port Code Supported: Ascii
Protocols Supported: X.25, Asynchronous (Start/Stop)
Aggregate Transmission Rate: 16
Features: Error Control, Automatic Transmission Speed (Baud Rate) Detection, Multiplexer/Demultiplexer, User Programmable, On-Line Maintenance, Statistics Collection, Downline Loading of Remote Node
Distribution Method: End user, OEM
(See Vendor Profile Page V-23)

PHOENIX DIGITAL CORP.
DPAC-86/PC
Processor Function: Front-End Processor, Message Switch, Remote-Line Concentrator, Host Independent, Distributed Processing Nodes
Compatibility Classification: IBM 370X
Word Length: 8 bit, 16 bit
Host Compatibility: DEC PDP-11/44, IBM Series/1, HP 1000
Peripherals Supported: CRT, Printer, Tape Drive, Disk Drive, Diagnostic/Test
Maximum Number Input Lines: 16
Input Transmission Mode: Full-Duplex, Half-Duplex
Input Transmission Speeds:
Synchronous: 50 bps to 1,000,000 bps
Asynchronous: 50 bps to 19,200 bps
Input Port Code Supported: Ebcdic, Ascii, X.25, Parallel Binary Data
Protocols Supported: BSC, SDLC, ADCCP, HDLC, UDLC, X.25, Asynchronous (Start/Stop), ICP, DDCMP
Maximum Output Lines: 16
Aggregate Transmission Rate: 100,000 bps
Features: Protocol and Code Conversion, Error Control, Terminal Emulation, Automatic Disconnect, Multiplexer/Demultiplexer, Processor-Initiated Dynamic Line Reconfiguration, Terminal Controller, Local Console (System Control Functions), Automatic Polling, User Programmable, On-Line Maintenance, Autodial/Autoanswer Capabilities, Downline Loading of Remote Node
Price: $8,000 to $15,000
Number Installed to Date: 100 to 1,000
(See Vendor Profile Page V-23)

PROCESSING INNOVATIONS, INC.
SAM (SPEECH AIDED MODEM)
Processor Function: Front-End Processor
Compatibility Classification: IBM 370X
Word Length: 8 bit
Host Compatibility: HP 3000, DEC VAX, Burroughs
Peripherals Supported: CRT, Printer, Disk Drive
Maximum Number Input Lines: 16
Input Transmission Mode: Full-Duplex, Half-Duplex
Input Transmission Speeds:
Asynchronous: 1,200 bps
Input Port Code Supported: Ebcdic, Ascii
Protocols Supported: BSC, Asynchronous (Start/Stop)
Maximum Output Lines: 1
Aggregate Transmission Rate: 192 bps
Features: Protocol and Code Conversion, Error Control, Terminal Emulation, Terminal-Initiated Applications Switching, Multiplexer/Demultiplexer, Local Console (System Control Functions), Automatic Polling, Statistics Collection, Autodial/Autoanswer Capabilities
Price: $1,595 to $10,000
Distribution Method: End user
Number Installed to Date: 100 to 1,000
Date First Installed: October 1978
(See Vendor Profile Page V-24)

RABIAN CORP.
UT-1 & UT-4
Processor Function: Remote Batch Only
Compatibility Classification: CDC, Sperry, Honeywell, IBM
Word Length: 16 bit
Host Compatibility: IBM, CDC, Sperry
Peripherals Supported: CRT, Printer, Tape Drive, Disk Drive, Diagnostic/Test, Plotter, Digitizer
Maximum Number Input Lines: 2
Input Transmission Mode: Full-Duplex, Half-Duplex
Input Transmission Speeds:
Synchronous: 19,200 bps
Protocols Supported: BSC, Asynchronous (Start/Stop)
Maximum Output Lines: 7
Aggregate Transmission Rate: 2
Features: Terminal Emulation
Price: $39,500 to $100,000
Monthly Maintenance Fee: $500
Distribution Method: End user
Number Installed to Date: 100 to 1,000
Date First Installed: 1971
(See Vendor Profile Page V-25)

RABIAN CORP.
UT-2 & UT-3
Processor Function: Remote Batch
Compatibility Classification: Sperry, CDC, IBM
Host Compatibility: IBM, Sperry, CDC
Peripherals Supported: CRT, Printer, Disk Drive, Diagnostic/Test, Card Punch
Maximum Number Input Lines: 1
Input Transmission Mode: Full-Duplex, Half-Duplex
Input Transmission Speeds:
Synchronous: 9,600 bps
Protocols Supported: BSC
Maximum Output Lines: 1
Aggregate Transmission Rate: 96 bps
Features: Terminal Emulation
Price: $24,000 to $50,000
Monthly Maintenance Fee: $375
Distribution Method: End user
Number Installed to Date: 50 to 100

RANYAN CORP.
ATTACHED PROCESSOR APS1
Processor Function: Front-End Processor
Compatibility Classification: Non-IBM (General Purpose)
Word Length: 16 bit, 32 bit
Host Compatibility: DEC VAX, DEC PDP-11, DEC LSI-11
Peripherals Supported: CRT, Printer, Tape Drive, Disk Drive
Maximum Number Input Lines: 64
Input Transmission Mode: Full-Duplex, Half-Duplex
Input Transmission Speeds:
Synchronous: 1,000,000 bps
Input Transmission Speeds:
Asynchronous: 110 bps to 56,000 bps
Input Port Code Supported: Ascii, X.25
Protocols Supported: X.25, Asynchronous (Start/Stop)
Maximum Output Lines: 64
Aggregate Transmission Rate: 9,144 bps
Features: Protocol and Code Conversion, Error Control, Terminal Emulation, Terminal-Initiated Applications Switching, Automatic Disconnect, Multiplexer/Demultiplexer, Local Console (System Control Functions), Automatic Polling, User Programmable, On-Line Maintenance, Statistics Collection, Autodial and Autoanswer Capabilities, Downline Loading of Remote Node
Price: $9,500 to $28,000
Distribution Method: End user
Date First Installed: April 1983
(See Vendor Profile Page V-25)

RAYTHEON CO.
RAYNET I, II, III
Processor Function: Remote-Line Concentrator
Compatibility Classification: Non-IBM (General Purpose)
Word Length: 16 bit
Host Compatibility: IBM, Amdahl
Peripherals Supported: CRT, Printer, Disk Drive
Maximum Number Input Lines: 128
Input Transmission Mode: Full-Duplex, Half-Duplex
Input Transmission Speeds:
Synchronous: 2,400 bps to 6,800 bps
Input Port Code Supported: Ebcdic, Ascii, ALC
Protocols Supported: BSC, ALC
Maximum Output Lines: 25
Aggregate Transmission Rate: 25
Aggregate Transmission Rate: 1,000 bps
Features: Protocol and Code Conversion, Error Control, Terminal Emulation, Automatic Transmission

Speed (Baud Rate) Detection, Terminal-Initiated Applications Switching, Local Console (System Control Functions), Automatic Polling, User Programmable, On-Line Maintenance, Statistics Collection, Downline Loading of Remote Node
Price: $200,000 to $600,000
Monthly Maintenance Fee: $2,000
Distribution Method: End user, Third-party
Number Installed to Date: 50 to 100
(See Vendor Profile Page V-25)

SGS SEMICONDUCTORS CORP.
SAMSON
Processor Function: Front-End Processor, Host Independent
Compatibility Classification: IBM 37XX
Word Length: 16 bit, 32 bit
Host Compatibility: IBM 3780, HP 300 Series, DEC VAX
Peripherals Supported: CRT, Printer, Tape Drive, Disk Drive
Maximum Number Input Lines: 34
Input Transmission Mode: Half-Duplex
Input Transmission Speeds:
Asynchronous: 9,600 bps
Input Port Code Supported: Ebcdic, Ascii, X.25, Baudot
Protocols Supported: BSC, SDLC, X.25, X.27, Asynchronous (Start/Stop)
Maximum Output Lines: 1
Aggregate Transmission Rate: 96 bps
Features: Protocol and Code Conversion, Error Control, Terminal Emulation, Automatic Transmission Speed (Baud Rate) Detection, Terminal-Initiated Applications Switching, Automatic Disconnect, Terminal Controller, Local Console (System Control Functions), Automatic Polling, User Programmable, On-Line Maintenance, Statistics Collection, Autodial/Autoanswer Capabilities, Downline Loading of Remote Node
Price: $24,900
Distribution Method: OEM
Number Installed to Date: 100 to 1,000
Date First Installed: January 1981
(See Vendor Profile Page V-26)

SIEMENAL CORP.
MICRONET 6
Processor Function: Host Independent, Message Processor
Compatibility Classification: Telex, TWX, DDD, Private Line
Word Length: 16 bit
Peripherals Supported: CRT, Printer, Disk Drive
Maximum Number Input Lines: 8
Input Transmission Mode: Full-Duplex, Half-Duplex
Input Transmission Speeds:
Asynchronous: 50 bps to 1,200 bps
Input Port Code Supported: Ascii, Baudot
Protocols Supported: Asynchronous (Start/Stop), Telex, TWX, IRC
Maximum Output Lines: 8
Aggregate Transmission Rate: 48 bps
Features: Protocol and Code Conversion, Error Control, Automatic Transmission Speed (Baud Rate) Detection, Terminal-Initiated Applications Switching, Automatic Disconnect, Local Console (System Control Functions), Programmable, Autodial/Autoanswer Capabilities
Price: $18,000 to $23,000
Monthly Maintenance Fee: $125
Distribution Method: End user, OEM
Number Installed to Date: 1,000 to 10,000
Date First Installed: 1981
(See Vendor Profile Page V-26)

SIEMENAL CORP.
MICRONET 8
Processor Function: Message Switch, Host Independent, Message Processor
Compatibility Classification: Telex, TWX, DDD, Private Line
Word Length: 16 bit
Peripherals Supported: CRT, Printer, Disk Drive
Maximum Number Input Lines: 8
Input Transmission Mode: Full-Duplex, Half-Duplex
Input Transmission Speeds:
Synchronous: 4,800 bps
Asynchronous: 50 bps to 1,200 bps
Input Port Code Supported: Ebcdic, Ascii, Baudot
Protocols Supported: BSC, Asynchronous (Start/Stop), Telex, TWX, IRC
Maximum Output Lines: 8
Aggregate Transmission Rate: 96 bps
Features: Protocol and Code Conversion, Error Control, Automatic Transmission Speed (Baud Rate) Detection, Terminal-Initiated Applications Switching, Automatic Disconnect, Local Console (System Control Functions), User Programmable, Statistics Collection, Autodial/Autoanswer Capabilities
Price: $21,000 to $28,000
Monthly Maintenance Fee: $150
Distribution Method: End user, OEM
Number Installed to Date: 100 to 1,000
Date First Installed: February 1983

SIEMENAL CORP.
MICRONET 12
Processor Function: Host Independent, Message Processor
Compatibility Classification: Telex, TWX, DDD, Private Line
Word Length: 8 bit
Peripherals Supported: CRT, Printer
Maximum Number Input Lines: 1
Input Transmission Mode: Full-Duplex, Half-Duplex
Input Transmission Speeds:
Asynchronous: 110 bps to 300 bps
Input Port Code Supported: Ascii, Baudot
Protocols Supported: Asynchronous (Start/Stop), Telex, TWX, DDD
Maximum Output Lines: 1
Features: Terminal Emulation, Automatic Transmission Speed (Baud Rate) Detection, Automatic Disconnect, User Programmable, Autodial/Autoanswer Capabilities
Price: $2,500
Monthly Maintenance Fee: $35
Distribution Method: End user, OEM, Third-party
Number Installed to Date: 1,000 to 10,000
Date First Installed: February 1984

SIEMENAL CORP.
MICRONET 26
Processor Function: Host Independent, Message Processor
Compatibility Classification: Telex, TWX, DDD, Private Line
Word Length: 8 bit
Peripherals Supported: CRT, Printer, OCR Interface
Maximum Number Input Lines: 4
Input Transmission Mode: Full-Duplex, Half-Duplex
Input Transmission Speeds:
Asynchronous: 50 bps to 1,200 bps
Input Port Code Supported: Ascii, Baudot
Protocols Supported: Asynchronous (Start/Stop), Telex, TWX, IRC
Maximum Output Lines: 4
Aggregate Transmission Rate: 4
Features: Protocol and Code Conversion, Automatic Transmission Speed (Baud Rate) Detection, Automatic Disconnect, User Programmable, Autodial/Autoanswer Capabilities
Price: $4,200
Monthly Maintenance Fee: $40
Distribution Method: End user, OEM, Third-party
Number Installed to Date: 1,000 to 10,000
Date First Installed: 1982

SIEMENAL CORP.
MICRONET 28
Processor Function: Host Independent, Message Processor
Compatibility Classification: Telex, TWX, DDD, Private Line
Word Length: 8 bit
Peripherals Supported: CRT, Printer, Disk Drive, OCR Interface
Maximum Number Input Lines: 4
Input Transmission Mode: Full-Duplex, Half-Duplex
Input Transmission Speeds:
Asynchronous: 50 bps to 1,200 bps
Input Port Code Supported: Ascii, Baudot
Protocols Supported: Asynchronous (Start/Stop), Telex, TWX
Maximum Output Lines: 4
Aggregate Transmission Rate: 4
Features: Protocol and Code Conversion, Automatic Transmission Speed (Baud Rate) Detection, Automatic Disconnect, User Programmable, Autodial/Autoanswer Capabilities
Price: $5,600
Monthly Maintenance Fee: $60
Distribution Method: End user, OEM, Third-party
Number Installed to Date: 1,000 to 10,000
Date First Installed: 1982

SIEMENAL CORP.
MICRONET 484
Processor Function: Host Independent, Message Processor
Compatibility Classification: Telex, TWX, DDD, Private Line
Word Length: 16 bit
Peripherals Supported: CRT, Printer, Disk Drive
Maximum Number Input Lines: 4
Input Transmission Mode: Full-Duplex, Half-Duplex
Input Transmission Speeds:
Asynchronous: 50 bps to 1,200 bps
Input Port Code Supported: Ascii, Baudot
Protocols Supported: Asynchronous (Start/Stop), Telex, TWX
Maximum Output Lines: 4
Aggregate Transmission Rate: 4
Features: Protocol and Code Conversion, Error Control, Automatic Transmission Speed (Baud Rate) Detection, Terminal-Initiated Applications Switching, Automatic Disconnect, Local Console (System Control Functions), User Programmable, Autodial/Autoanswer Capabilities
Price: $8,780 to $12,100
Monthly Maintenance Fee: $100
Distribution Method: End user, OEM
Date First Installed: September 1983

SIEMENAL CORP.
THE MICRONET SWITCH (STORE/FORWARD 8883)
Processor Function: Message Switch, Host Independent
Compatibility Classification: Telex, TWX, DDD, Private Line
Word Length: 16 bit
Peripherals Supported: CRT, Printer, Disk Drive
Maximum Number Input Lines: 24
Input Transmission Mode: Full-Duplex, Half-Duplex
Input Transmission Speeds:
Synchronous: 2,400 bps to 19,200 bps
Input Transmission Speeds:
Asynchronous: 50 bps to 2,400 bps
Input Port Code Supported: Ebcdic, Ascii, X.25, Baudot
Protocols Supported: BSC, HDLC, X.25, Asynchronous (Start/Stop), Telex, TWX, IRC
Maximum Output Lines: 24
Aggregate Transmission Rate: 580 bps
Features: Protocol and Code Conversion, Error Control, Automatic Transmission Speed (Baud Rate) Detection, Terminal-Initiated Applications Switching, Automatic Disconnect, Local Console (System Control Functions), Automatic Polling, User Programmable, Statistics Collection, Autodial and Autoanswer Capabilities
Price: $66,000 to $86,000

Communications Processors

Distribution Method: End user, OEM
Number Installed to Date: 1 to 10
Date First Installed: January 1984

SOFTWARE RESULTS CORP.
COMBOARD/HASP
Processor Function: Front-End Processor
Compatibility Classification: IBM 37XX
Word Length: 16 bit
Host Compatibility: IBM, CDC, DEC PDP-11, DEC VAX
Peripherals Supported: Printer
Maximum Number Input Lines: 1
Input Transmission Speeds:
Synchronous: 2,400 bps to 56,000 bps
Input Port Code Supported: Ebcdic, Ascii, Parallel Binary Data
Protocols Supported: BSC
Maximum Output Lines: 1
Aggregate Transmission Rate: 1
Features: Protocol and Code Conversion, Error Control, Automatic Transmission Speed (Baud Rate) Detection, Automatic Disconnect, Local Console (System Control Functions), Statistics Collection, Autodial/Autoanswer Capabilities, Downline Loading of Remote Node
Price: $13,900 to $26,900
Distribution Method: End user
Date First Installed: December 1983
(See Vendor Profile Page V-27)

SOFTWARE RESULTS CORP.
COMBOARD/SNA
Processor Function: Front-End Processor
Compatibility Classification: IBM 37XX
Word Length: 16 bit
Host Compatibility: IBM 3780, DEC VAX
Peripherals Supported: Printer
Maximum Number Input Lines: 1
Input Transmission Speeds:
Synchronous: 6,800 bps to 56,000 bps
Protocols Supported: SDLC
Maximum Output Lines: 1
Features: Protocol and Code Conversion, Error Control, Terminal Emulation, Automatic Transmission Speed (Baud Rate) Detection, Statistics Collection, Autodial/Autoanswer Capabilities, Downline Loading of Remote Node
Price: $18,000 to $32,800
Distribution Method: End user

SOFTWARE RESULTS CORP.
COMBOARD/3780
Processor Function: Front-End Processor
Compatibility Classification: IBM 37XX
Word Length: 16 bit
Host Compatibility: IBM 3780, CDC 3780, DEC PDP-11, DEC VAX
Peripherals Supported: Printer
Maximum Number Input Lines: 1
Input Transmission Mode: Half-Duplex
Input Transmission Speeds:
Synchronous: 6,800 bps to 56,000 bps
Input Port Code Supported: Ebcdic, Ascii, Parallel Binary Data
Protocols Supported: BSC
Maximum Output Lines: 1
Features: Protocol and Code Conversion, Error Control, Automatic Transmission Speed (Baud Rate) Detection, Automatic Disconnect, Statistics Collection, Autodial/Autoanswer Capabilities, Downline Loading of Remote Node
Price: $9,600 to $21,900
Distribution Method: End user
Number Installed to Date: 10 to 50
Date First Installed: November 1983

SPERRY CORP.
DISTRIBUTED COMM PROCESSOR/10
Processor Function: Front-End Processor, Remote-Line Concentrator
Compatibility Classification: Sperry
Word Length: 16 bit
Host Compatibility: Sperry 1100/60/70, Sperry System 11, Sperry 1100/60/80
Peripherals Supported: CRT, Printer, Tape Drive, Disk Drive
Maximum Number Input Lines: 6
Input Transmission Mode: Full-Duplex, Half-Duplex
Input Transmission Speeds:
Synchronous: 2,400 bps to 64,000 bps
Asynchronous: 455 bps to 19,200 bps
Input Port Code Supported: Ebcdic, Ascii, X.25, Parallel Binary Data, Baudot
Protocols Supported: BSC, SDLC, ADCCP, HDLC, UDLC, X.25, Asynchronous (Start/Stop), Uniscope, NTR
Maximum Output Lines: 1
Aggregate Transmission Rate: 1
Features: Protocol and Code Conversion, Error Control, Terminal Emulation, Automatic Transmission Speed (Baud Rate) Detection, Terminal-Initiated Applications Switching, Automatic Disconnect, Processor-Initiated Dynamic Line Reconfiguration, Local Console (System Control Functions), Automatic Polling, User Programmable, On-Line Maintenance, Statistics Collection, Autodial/Autoanswer Capabilities, Downline Loading of Remote Node
Price: $28,000 to $50,000
Distribution Method: End user
Number Installed to Date: 10 to 50
(See Vendor Profile Page V-29)

SPERRY CORP.
DISTRIBUTED COMM PROCESSOR/20
Processor Function: Front-End Processor, Remote-Line Concentrator
Compatibility Classification: Sperry
Word Length: 8 bit, 32 bit
Host Compatibility: Sperry Series 1100, Sperry System 11, Sperry Series 90/60
Peripherals Supported: CRT, Printer, Tape Drive, Disk Drive
Maximum Number Input Lines: 43
Input Transmission Mode: Full-Duplex, Half-Duplex
Input Transmission Speeds:
Synchronous: 2,400 bps to 64,000 bps
Asynchronous: 455 bps to 19,200 bps
Input Port Code Supported: Ebcdic, Ascii, X.25, Parallel Binary Data, Baudot
Protocols Supported: BSC, SDLC, ADCCP, HDLC, UDLC, X.25, Asynchronous (Start/Stop), Uniscope, NTR
Maximum Output Lines: 6
Aggregate Transmission Rate: 6
Features: Protocol and Code Conversion, Error Control, Terminal Emulation, Automatic Transmission Speed (Baud Rate) Detection, Terminal-Initiated Applications Switching, Automatic Disconnect, Processor-Initiated Dynamic Line Reconfiguration, Local Console (System Control Functions), Automatic Polling, User Programmable, On-Line Maintenance, Statistics Collection, Autodial/Autoanswer Capabilities, Downline Loading of Remote Node
Price: $103,000 to $990,999
Monthly Maintenance Fee: $1,200
Distribution Method: End user

SPERRY CORP.
DISTRIBUTED COMM PROCESSOR/40
Processor Function: Front-End Processor, Remote-Line Concentrator
Compatibility Classification: Sperry
Word Length: 16 bit, 32 bit
Host Compatibility: Sperry Series 1100, Sperry Series 90/80, Sperry System 11
Peripherals Supported: CRT, Printer, Tape Drive, Disk Drive
Maximum Number Input Lines: 253
Input Transmission Mode: Full-Duplex, Half-Duplex
Input Transmission Speeds:
Synchronous: 2,400 bps to 64,000 bps
Asynchronous: 455 bps to 19,200 bps
Input Port Code Supported: Ebcdic, Ascii, X.25, Parallel Binary Data, Baudot
Protocols Supported: BSC, SDLC, ADCCP, HDLC, UDLC, X.25, Asynchronous (Start/Stop), Uniscope, NTR
Maximum Output Lines: 6
Aggregate Transmission Rate: 6
Features: Protocol and Code Conversion, Error Control, Terminal Emulation, Automatic Transmission Speed (Baud Rate) Detection, Terminal-Initiated Applications Switching, Automatic Disconnect, Processor-Initiated Dynamic Line Reconfiguration, Local Console (System Control Functions), Automatic Polling, User Programmable, On-Line Maintenance, Statistics Collection, Autodial/Autoanswer Capabilities, Downline Loading of Remote Node
Price: $47,000 to $100,000
Distribution Method: End user
Number Installed to Date: 100 to 1,000

SPERRY CORP.
DISTRIBUTED COMM PROCESSOR/60
Processor Function: Front-End Processor, Remote-Line Concentrator
Compatibility Classification: Sperry
Word Length: 16 bit, 32 bit
Host Compatibility: Sperry Series 1100, Sperry Series 90/80, Sperry System 11
Peripherals Supported: CRT, Printer, Tape Drive, Disk Drive
Maximum Number Input Lines: 253
Input Transmission Mode: Full-Duplex, Half-Duplex
Input Transmission Speeds:
Synchronous: 2,400 bps to 64,000 bps
Asynchronous: 455 bps to 19,200 bps
Input Port Code Supported: Ebcdic, Ascii, X.25, Parallel Binary Data, Baudot
Protocols Supported: BSC, SDLC, ADCCP, HDLC, UDLC, X.25, Asynchronous (Start/Stop), Uniscope, NTR
Maximum Output Lines: 6
Aggregate Transmission Rate: 6
Features: Protocol and Code Conversion, Error Control, Terminal Emulation, Automatic Transmission Speed (Baud Rate) Detection, Terminal-Initiated Applications Switching, Automatic Disconnect, Processor-Initiated Dynamic Line Reconfiguration, Local Console (System Control Functions), Automatic Polling, User Programmable, On-Line Maintenance, Statistics Collection, Autodial/Autoanswer Capabilities, Downline Loading of Remote Node
Price: $103,000 to $990,999
Monthly Maintenance Fee: $1,200
Distribution Method: End user

SPERRY CORP.
DISTRIBUTED COMM PROCESSOR/80
Processor Function: Front-End Processor, Remote-Line Concentrator
Compatibility Classification: Sperry
Word Length: 16 bit, 32 bit
Host Compatibility: Sperry Series 1100, Sperry Series 90/80, Sperry System 11
Peripherals Supported: CRT, Printer, Tape Drive, Disk Drive
Maximum Number Input Lines: 253
Input Transmission Mode: Full-Duplex, Half-Duplex
Input Transmission Speeds:
Synchronous: 2,400 bps to 64,000 bps
Asynchronous: 455 bps to 19,200 bps
Input Port Code Supported: Ebcdic, Ascii, X.25, Parallel Binary Data, Baudot
Protocols Supported: BSC, SDLC, ADCCP, HDLC, UDLC, X.25, Asynchronous (Start/Stop), Uniscope, NTR
Maximum Output Lines: 6
Aggregate Transmission Rate: 6
Features: Protocol and Code Conversion, Error Control, Terminal Emulation, Automatic Transmission Speed (Baud Rate) Detection, Terminal-Initiated Applications Switching, Automatic Disconnect, Processor-Initiated Dynamic Line Reconfiguration, Local Console (System Control Functions), Automatic Polling, User Programmable, On-Line Maintenance, Statistics Collection, Autodial/Autoanswer Capabilities, Downline Loading of Remote Node
Price: $103,000 to $990,999
Monthly Maintenance Fee: $1,200
Distribution Method: End user

SPERRY CORP.
DISTRIBUTED COMM PROCESSOR/90
Processor Function: Front-End Processor, Remote-Line Concentrator
Compatibility Classification: Sperry
Word Length: 16 bit, 32 bit
Host Compatibility: Sperry Series 1100, Sperry Series 90/80, Sperry System 11
Peripherals Supported: CRT, Printer, Tape Drive, Disk Drive
Maximum Number Input Lines: 253
Input Transmission Mode: Full-Duplex, Half-Duplex
Input Transmission Speeds:
Synchronous: 2,400 bps to 64,000 bps
Asynchronous: 455 bps to 19,200 bps
Input Port Code Supported: Ebcdic, Ascii, X.25, Parallel Binary Data, Baudot
Protocols Supported: BSC, SDLC, ADCCP, HDLC, UDLC, X.25, Asynchronous (Start/Stop), Uniscope, NTR
Maximum Output Lines: 6
Aggregate Transmission Rate: 6
Features: Protocol and Code Conversion, Error Control, Terminal Emulation, Automatic Transmission Speed (Baud Rate) Detection, Terminal-Initiated Applications Switching, Automatic Disconnect, Processor-Initiated Dynamic Line Reconfiguration, Local Console (System Control Functions), Automatic Polling, User Programmable, On-Line Maintenance, Statistics Collection, Autodial/Autoanswer Capabilities, Downline Loading of Remote Node
Price: $103,000 to $990,999
Monthly Maintenance Fee: $1,200
Distribution Method: End user

SPERRY CORP.
DISTRIBUTED COMM PROCESSOR/100
Processor Function: Front-End Processor, Remote-Line Concentrator
Compatibility Classification: Sperry
Word Length: 16 bit, 32 bit
Host Compatibility: Sperry Series 1100, Sperry Series 90/80, Sperry System 11
Peripherals Supported: CRT, Printer, Tape Drive, Disk Drive
Maximum Number Input Lines: 253
Input Transmission Mode: Full-Duplex, Half-Duplex
Input Transmission Speeds:
Synchronous: 2,400 bps to 64,000 bps
Asynchronous: 455 bps to 19,200 bps
Input Port Code Supported: Ebcdic, Ascii, X.25, Parallel Binary Data, Baudot
Protocols Supported: BSC, SDLC, ADCCP, HDLC, UDLC, X.25, Asynchronous (Start/Stop), Uniscope, NTR
Maximum Output Lines: 6
Aggregate Transmission Rate: 6
Features: Protocol and Code Conversion, Error Control, Terminal Emulation, Automatic Transmission Speed (Baud Rate) Detection, Terminal-Initiated Applications Switching, Automatic Disconnect, Processor-Initiated Dynamic Line Reconfiguration, Local Console (System Control Functions), Automatic Polling, User Programmable, On-Line Maintenance, Statistics Collection, Autodial/Autoanswer Capabilities, Downline Loading of Remote Node
Price: $103,000 to $990,999
Monthly Maintenance Fee: $1,200
Distribution Method: End user

SPERRY CORP.
DISTRIBUTED COMM PROCESSOR/110
Processor Function: Front-End Processor, Remote-Line Concentrator
Compatibility Classification: Sperry
Word Length: 16 bit, 32 bit
Host Compatibility: Sperry Series 1100, Sperry Series 90/80, Sperry System 11
Peripherals Supported: CRT, Printer, Tape Drive, Disk Drive
Maximum Number Input Lines: 253
Input Transmission Mode: Full-Duplex, Half-Duplex
Input Transmission Speeds:
Synchronous: 2,400 bps to 64,000 bps
Asynchronous: 455 bps to 19,200 bps
Input Port Code Supported: Ebcdic, Ascii, X.25, Parallel Binary Data, Baudot
Protocols Supported: BSC, SDLC, ADCCP, HDLC, UDLC, X.25, Asynchronous (Start/Stop), Uniscope, NTR
Maximum Output Lines: 6
Aggregate Transmission Rate: 6
Features: Protocol and Code Conversion, Error Control, Terminal Emulation, Automatic Transmission Speed (Baud Rate) Detection, Terminal-Initiated Applications Switching, Automatic Disconnect, Processor-Initiated Dynamic Line Reconfiguration, Local Console (System Control Functions), Automatic Polling, User Programmable, On-Line Maintenance, Statistics Collection, Autodial/Autoanswer Capabilities, Downline Loading of Remote Node
Price: $103,000 to $990,999
Monthly Maintenance Fee: $1,200
Distribution Method: End user

SPERRY CORP.
DISTRIBUTED COMM PROCESSOR/120
Processor Function: Front-End Processor, Remote-Line Concentrator
Compatibility Classification: Sperry
Word Length: 16 bit, 32 bit
Host Compatibility: Sperry Series 1100, Sperry Series 90/80, Sperry System 11
Peripherals Supported: CRT, Printer, Tape Drive, Disk Drive
Maximum Number Input Lines: 253
Input Transmission Mode: Full-Duplex, Half-Duplex
Input Transmission Speeds:
Synchronous: 2,400 bps to 64,000 bps
Asynchronous: 455 bps to 19,200 bps
Input Port Code Supported: Ebcdic, Ascii, X.25, Parallel Binary Data, Baudot
Protocols Supported: BSC, SDLC, ADCCP, HDLC, UDLC, X.25, Asynchronous (Start/Stop), Uniscope, NTR
Maximum Output Lines: 6
Aggregate Transmission Rate: 6
Features: Protocol and Code Conversion, Error Control, Terminal Emulation, Automatic Transmission Speed (Baud Rate) Detection, Terminal-Initiated Applications Switching, Automatic Disconnect, Processor-Initiated Dynamic Line Reconfiguration, Local Console (System Control Functions), Automatic Polling, User Programmable, On-Line Maintenance, Statistics Collection, Autodial/Autoanswer Capabilities, Downline Loading of Remote Node
Price: $103,000 to $990,999
Monthly Maintenance Fee: $1,200
Distribution Method: End user

SPERRY CORP.
DISTRIBUTED COMM PROCESSOR/130
Processor Function: Front-End Processor, Remote-Line Concentrator
Compatibility Classification: Sperry
Word Length: 16 bit, 32 bit
Host Compatibility: Sperry Series 1100, Sperry Series 90/80, Sperry System 11
Peripherals Supported: CRT, Printer, Tape Drive, Disk Drive
Maximum Number Input Lines: 253
Input Transmission Mode: Full-Duplex, Half-Duplex
Input Transmission Speeds:
Synchronous: 2,400 bps to 64,000 bps
Asynchronous: 455 bps to 19,200 bps
Input Port Code Supported: Ebcdic, Ascii, X.25, Parallel Binary Data, Baudot
Protocols Supported: BSC, SDLC, ADCCP, HDLC, UDLC, X.25, Asynchronous (Start/Stop), Uniscope, NTR
Maximum Output Lines: 6
Aggregate Transmission Rate: 6
Features: Protocol and Code Conversion, Error Control, Terminal Emulation, Automatic Transmission Speed (Baud Rate) Detection, Terminal-Initiated Applications Switching, Automatic Disconnect, Processor-Initiated Dynamic Line Reconfiguration, Local Console (System Control Functions), Automatic Polling, User Programmable, On-Line Maintenance, Statistics Collection, Autodial/Autoanswer Capabilities, Downline Loading of Remote Node
Price: $103,000 to $990,999
Monthly Maintenance Fee: $1,200
Distribution Method: End user

SPERRY CORP.
DISTRIBUTED COMM PROCESSOR/140
Processor Function: Front-End Processor, Remote-Line Concentrator
Compatibility Classification: Sperry
Word Length: 16 bit, 32 bit
Host Compatibility: Sperry Series 1100, Sperry Series 90/80, Sperry System 11
Peripherals Supported: CRT, Printer, Tape Drive, Disk Drive
Maximum Number Input Lines: 253
Input Transmission Mode: Full-Duplex, Half-Duplex
Input Transmission Speeds:
Synchronous: 2,400 bps to 64,000 bps
Asynchronous: 455 bps to 19,200 bps
Input Port Code Supported: Ebcdic, Ascii, X.25, Parallel Binary Data, Baudot
Protocols Supported: BSC, SDLC, ADCCP, HDLC, UDLC, X.25, Asynchronous (Start/Stop), Uniscope, NTR
Maximum Output Lines: 6
Aggregate Transmission Rate: 6
Features: Protocol and Code Conversion, Error Control, Terminal Emulation, Automatic Transmission Speed (Baud Rate) Detection, Terminal-Initiated Applications Switching, Automatic Disconnect, Processor-Initiated Dynamic Line Reconfiguration, Local Console (System Control Functions), Automatic Polling, User Programmable, On-Line Maintenance, Statistics Collection, Autodial/Autoanswer Capabilities, Downline Loading of Remote Node
Price: $103,000 to $990,999
Monthly Maintenance Fee: $1,200
Distribution Method: End user

SPERRY CORP.
DISTRIBUTED COMM PROCESSOR/150
Processor Function: Front-End Processor, Remote-Line Concentrator
Compatibility Classification: Sperry
Word Length: 16 bit, 32 bit
Host Compatibility: Sperry Series 1100, Sperry Series 90/80, Sperry System 11
Peripherals Supported: CRT, Printer, Tape Drive, Disk Drive
Maximum Number Input Lines: 253
Input Transmission Mode: Full-Duplex, Half-Duplex
Input Transmission Speeds:
Synchronous: 2,400 bps to 64,000 bps
Asynchronous: 455 bps to 19,200 bps
Input Port Code Supported: Ebcdic, Ascii, X.25, Parallel Binary Data, Baudot
Protocols Supported: BSC, SDLC, ADCCP, HDLC, UDLC, X.25, Asynchronous (Start/Stop), Uniscope, NTR
Maximum Output Lines: 6
Aggregate Transmission Rate: 6
Features: Protocol and Code Conversion, Error Control, Terminal Emulation, Automatic Transmission Speed (Baud Rate) Detection, Terminal-Initiated Applications Switching, Automatic Disconnect, Processor-Initiated Dynamic Line Reconfiguration, Local Console (System Control Functions), Automatic Polling, User Programmable, On-Line Maintenance, Statistics Collection, Autodial/Autoanswer Capabilities, Downline Loading of Remote Node
Price: $103,000 to $990,999
Monthly Maintenance Fee: $1,200
Distribution Method: End user

SPERRY CORP.
DISTRIBUTED COMM PROCESSOR/160
Processor Function: Front-End Processor, Remote-Line Concentrator
Compatibility Classification: Sperry
Word Length: 16 bit, 32 bit
Host Compatibility: Sperry Series 1100, Sperry Series 90/80, Sperry System 11
Peripherals Supported: CRT, Printer, Tape Drive, Disk Drive
Maximum Number Input Lines: 253
Input Transmission Mode: Full-Duplex, Half-Duplex
Input Transmission Speeds:
Synchronous: 2,400 bps to 64,000 bps
Asynchronous: 455 bps to 19,200 bps
Input Port Code Supported: Ebcdic, Ascii, X.25, Parallel Binary Data, Baudot
Protocols Supported: BSC, SDLC, ADCCP, HDLC, UDLC, X.25, Asynchronous (Start/Stop), Uniscope, NTR
Maximum Output Lines: 6
Aggregate Transmission Rate: 6
Features: Protocol and Code Conversion, Error Control, Terminal Emulation, Automatic Transmission Speed (Baud Rate) Detection, Terminal-Initiated Applications Switching, Automatic Disconnect, Processor-Initiated Dynamic Line Reconfiguration, Local Console (System Control Functions), Automatic Polling, User Programmable, On-Line Maintenance, Statistics Collection, Autodial/Autoanswer Capabilities, Downline Loading of Remote Node
Price: $103,000 to $990,999
Monthly Maintenance Fee: $1,200
Distribution Method: End user

SPERRY CORP.
DISTRIBUTED COMM PROCESSOR/180
Processor Function: Front-End Processor, Remote-Line Concentrator
Compatibility Classification: Sperry
Word Length: 16 bit, 32 bit
Host Compatibility: Sperry Series 1100, Sperry Series 90/80, Sperry System 11
Peripherals Supported: CRT, Printer, Tape Drive, Disk Drive
Maximum Number Input Lines: 253
Input Transmission Mode: Full-Duplex, Half-Duplex
Input Transmission Speeds:
Synchronous: 2,400 bps to 64,000 bps
Asynchronous: 455 bps to 19,200 bps
Input Port Code Supported: Ebcdic, Ascii, X.25, Parallel Binary Data, Baudot
Protocols Supported: BSC, SDLC, ADCCP, HDLC, UDLC, X.25, Asynchronous (Start/Stop), Uniscope, NTR
Maximum Output Lines: 6
Aggregate Transmission Rate: 6
Features: Protocol and Code Conversion, Error Control, Terminal Emulation, Automatic Transmission Speed (Baud Rate) Detection, Terminal-Initiated Applications Switching, Automatic Disconnect, Processor-Initiated Dynamic Line Reconfiguration, Local Console (System Control Functions), Automatic Polling, User Programmable, On-Line Maintenance, Statistics Collection, Autodial/Autoanswer Capabilities, Downline Loading of Remote Node
Price: $103,000 to $990,999
Monthly Maintenance Fee: $1,200
Distribution Method: End user

SPERRY CORP.
DISTRIBUTED COMM PROCESSOR/190
Processor Function: Front-End Processor, Remote-Line Concentrator
Compatibility Classification: Sperry
Word Length: 16 bit, 32 bit
Host Compatibility: Sperry Series 1100, Sperry Series 90/80, Sperry System 11
Peripherals Supported: CRT, Printer, Tape Drive, Disk Drive
Maximum Number Input Lines: 253
Input Transmission Mode: Full-Duplex, Half-Duplex
Input Transmission Speeds:
Synchronous: 2,400 bps to 64,000 bps
Asynchronous: 455 bps to 19,200 bps
Input Port Code Supported: Ebcdic, Ascii, X.25, Parallel Binary Data, Baudot
Protocols Supported: BSC, SDLC, ADCCP, HDLC, UDLC, X.25, Asynchronous (Start/Stop), Uniscope, NTR
Maximum Output Lines: 6
Aggregate Transmission Rate: 6
Features: Protocol and Code Conversion, Error Control, Terminal Emulation, Automatic Transmission Speed (Baud Rate) Detection, Terminal-Initiated Applications Switching, Automatic Disconnect, Processor-Initiated Dynamic Line Reconfiguration, Local Console (System Control Functions), Automatic Polling, User Programmable, On-Line Maintenance, Statistics Collection, Autodial/Autoanswer Capabilities, Downline Loading of Remote Node
Price: $103,000 to $990,999
Monthly Maintenance Fee: $1,200
Distribution Method: End user

SPERRY CORP.
DISTRIBUTED COMM PROCESSOR/200
Processor Function: Front-End Processor, Remote-Line Concentrator
Compatibility Classification: Sperry
Word Length: 16 bit, 32 bit
Host Compatibility: Sperry Series 1100, Sperry Series 90/80, Sperry System 11
Peripherals Supported: CRT, Printer, Tape Drive, Disk Drive
Maximum Number Input Lines: 253
Input Transmission Mode: Full-Duplex, Half-Duplex
Input Transmission Speeds:
Synchronous: 2,400 bps to 64,000 bps
Asynchronous: 455 bps to 19,200 bps
Input Port Code Supported: Ebcdic, Ascii, X.25, Parallel Binary Data, Baudot
Protocols Supported: BSC, SDLC, ADCCP, HDLC, UDLC, X.25, Asynchronous (Start/Stop), Uniscope, NTR
Maximum Output Lines: 6
Aggregate Transmission Rate: 6
Features: Protocol and Code Conversion, Error Control, Terminal Emulation, Automatic Transmission Speed (Baud Rate) Detection, Terminal-Initiated Applications Switching, Automatic Disconnect, Processor-Initiated Dynamic Line Reconfiguration, Local Console (System Control Functions), Automatic Polling, User Programmable, On-Line Maintenance, Statistics Collection, Autodial/Autoanswer Capabilities, Downline Loading of Remote Node
Price: $103,000 to $990,999
Monthly Maintenance Fee: $1,200
Distribution Method: End user

SPERRY CORP.
DISTRIBUTED COMM PROCESSOR/210
Processor Function: Front-End Processor, Remote-Line Concentrator
Compatibility Classification: Sperry
Word Length: 16 bit, 32 bit
Host Compatibility: Sperry Series 1100, Sperry Series 90/80, Sperry System 11
Peripherals Supported: CRT, Printer, Tape Drive, Disk Drive
Maximum Number Input Lines: 253
Input Transmission Mode: Full-Duplex, Half-Duplex
Input Transmission Speeds:
Synchronous: 2,400 bps to 64,000 bps
Asynchronous: 455 bps to 19,200 bps
Input Port Code Supported: Ebcdic, Ascii, X.25, Parallel Binary Data, Baudot
Protocols Supported: BSC, SDLC, ADCCP, HDLC, UDLC, X.25, Asynchronous (Start/Stop), Uniscope, NTR
Maximum Output Lines: 6
Aggregate Transmission Rate: 6
Features: Protocol and Code Conversion, Error Control, Terminal Emulation, Automatic Transmission Speed (Baud Rate) Detection, Terminal-Initiated Applications Switching, Automatic Disconnect, Processor-Initiated Dynamic Line Reconfiguration, Local Console (System Control Functions), Automatic Polling, User Programmable, On-Line Maintenance, Statistics Collection, Autodial/Autoanswer Capabilities, Downline Loading of Remote Node
Price: $103,000 to $990,999
Monthly Maintenance Fee: $1,200
Distribution Method: End user

SPERRY CORP.
DISTRIBUTED COMM PROCESSOR/220
Processor Function: Front-End Processor, Remote-Line Concentrator
Compatibility Classification: Sperry
Word Length: 16 bit, 32 bit
Host Compatibility: Sperry Series 1100, Sperry Series 90/80, Sperry System 11
Peripherals Supported: CRT, Printer, Tape Drive, Disk Drive
Maximum Number Input Lines: 253
Input Transmission Mode: Full-Duplex, Half-Duplex
Input Transmission Speeds:
Synchronous: 2,400 bps to 64,000 bps
Asynchronous: 455 bps to 19,200 bps
Input Port Code Supported: Ebcdic, Ascii, X.25, Parallel Binary Data, Baudot
Protocols Supported: BSC, SDLC, ADCCP, HDLC, UDLC, X.25, Asynchronous (Start/Stop), Uniscope, NTR
Maximum Output Lines: 6
Aggregate Transmission Rate: 6
Features: Protocol and Code Conversion, Error Control, Terminal Emulation, Automatic Transmission Speed (Baud Rate) Detection, Terminal-Initiated Applications Switching, Automatic Disconnect, Processor-Initiated Dynamic Line Reconfiguration, Local Console (System Control Functions), Automatic Polling, User Programmable, On-Line Maintenance, Statistics Collection, Autodial/Autoanswer Capabilities, Downline Loading of Remote Node
Price: $103,000 to $990,999
Monthly Maintenance Fee: $1,200
Distribution Method: End user

SPERRY CORP.
DISTRIBUTED COMM PROCESSOR/230
Processor Function: Front-End Processor, Remote-Line Concentrator
Compatibility Classification: Sperry
Word Length: 16 bit, 32 bit
Host Compatibility: Sperry Series 1100, Sperry Series 90/80, Sperry System 11
Peripherals Supported: CRT, Printer, Tape Drive, Disk Drive
Maximum Number Input Lines: 253
Input Transmission Mode: Full-Duplex, Half-Duplex
Input Transmission Speeds:
Synchronous: 2,400 bps to 64,000 bps
Asynchronous: 455 bps to 19,200 bps
Input Port Code Supported: Ebcdic, Ascii, X.25, Parallel Binary Data, Baudot
Protocols Supported: BSC, SDLC, ADCCP, HDLC, UDLC, X.25, Asynchronous (Start/Stop), Uniscope, NTR
Maximum Output Lines: 6
Aggregate Transmission Rate: 6
Features: Protocol and Code Conversion, Error Control, Terminal Emulation, Automatic Transmission Speed (Baud Rate) Detection, Terminal-Initiated Applications Switching, Automatic Disconnect, Processor-Initiated Dynamic Line Reconfiguration, Local Console (System Control Functions), Automatic Polling, User Programmable, On-Line Maintenance, Statistics Collection, Autodial/Autoanswer Capabilities, Downline Loading of Remote Node
Price: $103,000 to $990,999
Monthly Maintenance Fee: $1,200
Distribution Method: End user

SPERRY CORP.
DISTRIBUTED COMM PROCESSOR/240
Processor Function: Front-End Processor, Remote-Line Concentrator
Compatibility Classification: Sperry
Word Length: 16 bit, 32 bit
Host Compatibility: Sperry Series 1100, Sperry Series 90/80, Sperry System 11
Peripherals Supported: CRT, Printer, Tape Drive, Disk Drive
Maximum Number Input Lines: 253
Input Transmission Mode: Full-Duplex, Half-Duplex
Input Transmission Speeds:
Synchronous: 2,400 bps to 64,000 bps
Asynchronous: 455 bps to 19,200 bps
Input Port Code Supported: Ebcdic, Ascii, X.25, Parallel Binary Data, Baudot
Protocols Supported: BSC, SDLC, ADCCP, HDLC, UDLC, X.25, Asynchronous (Start/Stop), Uniscope, NTR
Maximum Output Lines: 6
Aggregate Transmission Rate: 6
Features: Protocol and Code Conversion, Error Control, Terminal Emulation, Automatic Transmission Speed (Baud Rate) Detection, Terminal-Initiated Applications Switching, Automatic Disconnect, Processor-Initiated Dynamic Line Reconfiguration, Local Console (System Control Functions), Automatic Polling, User Programmable, On-Line Maintenance, Statistics Collection, Autodial/Autoanswer Capabilities, Downline Loading of Remote Node
Price: $103,000 to $990,999
Monthly Maintenance Fee: $1,200
Distribution Method: End user

SPERRY CORP.
DISTRIBUTED COMM PROCESSOR/250
Processor Function: Front-End Processor, Remote-Line Concentrator
Compatibility Classification: Sperry
Word Length: 16 bit, 32 bit
Host Compatibility: Sperry Series 1100, Sperry Series 90/80, Sperry System 11
Peripherals Supported: CRT, Printer, Tape Drive, Disk Drive
Maximum Number Input Lines: 253
Input Transmission Mode: Full-Duplex, Half-Duplex
Input Transmission Speeds:
Synchronous: 2,400 bps to 64,000 bps
Asynchronous: 455 bps to 19,200 bps
Input Port Code Supported: Ebcdic, Ascii, X.25, Parallel Binary Data, Baudot
Protocols Supported: BSC, SDLC, ADCCP, HDLC, UDLC, X.25, Asynchronous (Start/Stop), Uniscope, NTR
Maximum Output Lines: 6
Aggregate Transmission Rate: 6
Features: Protocol and Code Conversion, Error Control, Terminal Emulation, Automatic Transmission Speed (Baud Rate) Detection, Terminal-Initiated Applications Switching, Automatic Disconnect, Processor-Initiated Dynamic Line Reconfiguration, Local Console (System Control Functions), Automatic Polling, User Programmable, On-Line Maintenance, Statistics Collection, Autodial/Autoanswer Capabilities, Downline Loading of Remote Node
Price: $103,000 to $990,999
Monthly Maintenance Fee: $1,200
Distribution Method: End user

SPERRY CORP.
DISTRIBUTED COMM PROCESSOR/260
Processor Function: Front-End Processor, Remote-Line Concentrator
Compatibility Classification: Sperry
Word Length: 16 bit, 32 bit
Host Compatibility: Sperry Series 1100, Sperry Series 90/80, Sperry System 11
Peripherals Supported: CRT, Printer, Tape Drive, Disk Drive
Maximum Number Input Lines: 253
Input Transmission Mode: Full-Duplex, Half-Duplex
Input Transmission Speeds:
Synchronous: 2,400 bps to 64,000 bps
Asynchronous: 455 bps to 19,200 bps
Input Port Code Supported: Ebcdic, Ascii, X.25, Parallel Binary Data, Baudot
Protocols Supported: BSC, SDLC, ADCCP, HDLC, UDLC, X.25, Asynchronous (Start/Stop), Uniscope, NTR
Maximum Output Lines: 6
Aggregate Transmission Rate: 6
Features: Protocol and Code Conversion, Error Control, Terminal Emulation, Automatic Transmission Speed (Baud Rate) Detection, Terminal-Initiated Applications Switching, Automatic Disconnect, Processor-Initiated Dynamic Line Reconfiguration, Local Console (System Control Functions), Automatic Polling, User Programmable, On-Line Maintenance, Statistics Collection, Autodial/Autoanswer Capabilities, Downline Loading of Remote Node
Price: $103,000 to $990,999
Monthly Maintenance Fee: $1,200
Distribution Method: End user

SPERRY CORP.
DISTRIBUTED COMM PROCESSOR/270
Processor Function: Front-End Processor, Remote-Line Concentrator
Compatibility Classification: Sperry
Word Length: 16 bit, 32 bit
Host Compatibility: Sperry Series 1100, Sperry Series 90/80, Sperry System 11
Peripherals Supported: CRT, Printer, Tape Drive, Disk Drive
Maximum Number Input Lines: 253
Input Transmission Mode: Full-Duplex, Half-Duplex
Input Transmission Speeds:
Synchronous: 2,400 bps to 64,000 bps
Asynchronous: 455 bps to 19,200 bps
Input Port Code Supported: Ebcdic, Ascii, X.25, Parallel Binary Data, Baudot
Protocols Supported: BSC, SDLC, ADCCP, HDLC, UDLC, X.25, Asynchronous (Start/Stop), Uniscope, NTR
Maximum Output Lines: 6
Aggregate Transmission Rate: 6
Features: Protocol and Code Conversion, Error Control, Terminal Emulation, Automatic Transmission Speed (Baud Rate) Detection, Terminal-Initiated Applications Switching, Automatic Disconnect, Processor-Initiated Dynamic Line Reconfiguration, Local Console (System Control Functions), Automatic Polling, User Programmable, On-Line Maintenance, Statistics Collection, Autodial/Autoanswer Capabilities, Downline Loading of Remote Node
Price: $103,000 to $990,999
Monthly Maintenance Fee: $1,200
Distribution Method: End user

SPERRY CORP.
DISTRIBUTED COMM PROCESSOR/280
Processor Function: Front-End Processor,

Asynchronous: 50 bps to 56,000 bps
Input Port Code Supported: Ebcdic, Ascii, X.25, Baudot
Protocols Supported: ADCCP, HDLC, Asynchronous (Start/Stop), Exchange 3780
Maximum Output Lines: 300
Aggregate Transmission Rate: 16
Features: Protocol and Code Conversion, Error Control, Automatic Disconnect, Multiplexer/Demultiplexer, Terminal Controller, Automatic Polling, User Programmable, On-Line Maintenance, Statistics Collection, Autodial/Autoanswer Capabilities, Downline Loading of Remote Node
Price: $24,000 to $300,000
Monthly Maintenance Fee: $119
Distribution Method: End user
Number Installed to Date: 10 to 50
Date First Installed: April 1983
(See Vendor Profile Page V-29)

TANDEM COMPUTERS, INC.
INPOBAT
Processor Function: Earth Station
Word Length: 16 bit, 32 bit
Maximum Number Input Lines: 8
Input Transmission Mode: Full-Duplex
Input Transmission Speeds:
Synchronous: 56 bps to 56,000 bps
Asynchronous: 56 bps to 56,000 bps
Input Port Code Supported: Expand
Maximum Output Lines: 2
Aggregate Transmission Rate: 2
Price: $63,000
Monthly Maintenance Fee: $1,100
Distribution Method: End user

THOMAS ENGINEERING
MZ-80
Processor Function: Front-End Processor
Compatibility Classification: IBM 37XX
Word Length: 8 bit
Host Compatibility: Honeywell Series 60, DPS Series
Peripherals Supported: CRT, Printer, Disk Drive, Diagnostic/Test
Maximum Number Input Lines: 32
Input Transmission Mode: Half-Duplex
Input Transmission Speeds:
Asynchronous: 110 bps to 19,200 bps
Input Port Code Supported: Ebcdic, Ascii
Protocols Supported: BSC, SDLC, VIP
Maximum Output Lines: 32
Aggregate Transmission Rate: 3,072 bps
Features: Protocol and Code Conversion, Error Control, Terminal Emulation, Automatic Transmission Speed (Baud Rate) Detection, Terminal-Initiated Applications Switching, Automatic Disconnect, Multiplexer/Demultiplexer, Terminal Controller, Local Console (System Control Functions), Automatic Polling, User Programmable, On-Line Maintenance
Price: $5,000 to $12,000
Distribution Method: End user
Number Installed to Date: 100 to 1,000
Date First Installed: December 1981
(See Vendor Profile Page V-30)

TITN
68K30
Processor Function: Host Independent
Compatibility Classification: Non-IBM (General Purpose)
Word Length: 8 bit, 16 bit, 32 bit
Peripherals Supported: CRT, Printer, Diagnostic/Test
Maximum Number Input Lines: 2
Input Transmission Mode: Full-Duplex, Half-Duplex
Input Transmission Speeds:
Synchronous: 600 bps to 307,200 bps
Asynchronous: 50 bps to 19,200 bps
Input Port Code Supported: Ebcdic, Ascii, X.25, Parallel Binary Data
Protocols Supported: BSC, SDLC, HDLC, X.25, Asynchronous (Start/Stop)
Maximum Output Lines: 2
Aggregate Transmission Rate: 6,144 bps
Features: Error Control, Automatic Transmission Speed (Baud Rate) Detection, Processor-Initiated Dynamic Line Reconfiguration, Terminal Controller, User Programmable
Price: $3,750
Distribution Method: End user
Number Installed to Date: 50 to 100
Date First Installed: January 1982
(See Vendor Profile Page V-31)

TUCK ELECTRONICS, INC.
PEOPLE TO COMPUTER INTERFACE
Processor Function: Front-End Processor, Message Switch, Remote-Line Concentrator, Host Independent
Compatibility Classification: Non-IBM (General Purpose)
Word Length: 8 bit
Host Compatibility: IBM Series/1, Tandem
Peripherals Supported: CRT, Touch-Tone Phones
Maximum Number Input Lines: 64
Input Transmission Mode: Full-Duplex
Input Transmission Speeds:
Asynchronous: 300 bps to 1,200 bps
Input Port Code Supported: Ascii
Protocols Supported: BSC, SDLC, X.25
Maximum Output Lines: 1
Aggregate Transmission Rate: 96 bps
Features: Protocol and Code Conversion, Error Control, Multiplexer/Demultiplexer, Automatic Polling, User Programmable, Autodial/Autoanswer Capabilities, Downlined-Loading of Remote Node
Distribution Method: End user
Date First Installed: January 1983
(See Vendor Profile Page V-32)

WINTERHALTER, INC.
DATATALKER
Processor Function: Front-End Processor
Compatibility Classification: IBM 37XX
Word Length: 8 bit
Host Compatibility: IBM
Peripherals Supported: CRT, Printer, Diagnostic/Test
Maximum Number Input Lines: 1
Input Transmission Mode: Half-Duplex
Input Transmission Speeds:
Synchronous: 1,200 bps to 19,200 bps
Input Port Code Supported: Ebcdic, Ascii
Protocols Supported: BSC
Maximum Output Lines: 1
Aggregate Transmission Rate: 100 bps
Features: Protocol and Code Conversion, Error Control, Terminal Emulation, Automatic Transmission Speed (Baud Rate) Detection, Autodialer, Automatic Disconnect, Terminal Connector, Automatic Polling, User Programmable
Price: $995
Distribution Method: End user, OEM, Third-party
Number Installed to Date: 100 to 1,000
Date First Installed: January 1983
(See Vendor Profile Page V-33)

WINTERHALTER, INC.
DATATALKER 2
Processor Function: Front-End Processor
Compatibility Classification: IBM 270X
Word Length: 8 bit
Host Compatibility: IBM Mainframes
Maximum Number Input Lines: 4
Input Transmission Mode: Half-Duplex
Input Transmission Speeds:
Asynchronous: 9,600 bps
Input Port Code Supported: Ebcdic, Ascii
Protocols Supported: BSC
Maximum Output Lines: 1
Aggregate Transmission Rate: 192 bps
Features: Protocol and Code Conversion, Error Control, Terminal Emulation, Terminal-Initiated Applications Switching, Automatic Disconnect, Multiplexer/Demultiplexer, Processor-Initiated Dynamic Line Reconfiguration, Automatic Polling, User Programmable, Autodial/Autoanswer Capabilities, Downlined Loading of Remote Node
Price: $995 to $995
Distribution Method: End user
Date First Installed: January 1984

XYPLEX, INC.
XP-UN64
Processor Function: Front-End Processor, Message Switch, Remote-Line Concentrator, Host Independent, Distributed Processing Nodes
Compatibility Classification: Non-IBM (General Purpose)
Word Length: 16 bit
Host Compatibility: DEC PDP-11, DEC VAX
Peripherals Supported: CRT, Printer
Maximum Number Input Lines: 64
Input Transmission Mode: Full-Duplex
Input Transmission Speeds:
Asynchronous: 9,600 bps
Input Port Code Supported: Ebcdic, Ascii
Protocols Supported: Asynchronous (Start/Stop)
Maximum Output Lines: 64
Aggregate Transmission Rate: 999,999 bps
Features: Protocol and Code Conversion, Error Control, Terminal Emulation, Automatic Transmission Speed (Baud Rate) Detection, Terminal-Initiated Applications Switching, Automatic Disconnect, Multiplexer/Demultiplexer, Terminal Controller, On-Line Maintenance, Statistics Collection, Autodial/Autoanswer Capabilities
Price: $9,500
Monthly Maintenance Fee: $100
Distribution Method: End user
Date First Installed: September 1982
(See Vendor Profile Page V-33)

XYPLEX, INC.
XYPLEX SYSTEM
Processor Function: Front-End Processor, Message Switch, Remote-Line Concentrator, Host Independent, Distributed Processing Nodes
Compatibility Classification: Non-IBM (General Purpose)
Word Length: 16 bit
Host Compatibility: DEC VAX, DEC PDP-11
Peripherals Supported: CRT, Printer, Diagnostic/Test
Maximum Number Input Lines: 2,000
Input Transmission Mode: Full-Duplex
Input Transmission Speeds:
Asynchronous: 9,600 bps
Input Port Code Supported: Ascii, Parallel Binary Data
Protocols Supported: HDLC, Asynchronous (Start/Stop)
Maximum Output Lines: 2,000
Aggregate Transmission Rate: 10,000 bps
Features: Protocol and Code Conversion, Error Control, Terminal Emulation, Automatic Transmission Speed (Baud Rate) Detection, Terminal-Initiated Applications Switching, Automatic Disconnect, Multiplexer/Demultiplexer, Terminal Controller, Automatic Polling, User Programmable, On-Line Maintenance, Statistics Collection, Autodial/Autoanswer Capabilities, Downline Loading of Remote Node
Distribution Method: Third-party
Number Installed to Date: 50 to 100
Date First Installed: October 1982

SWITCHING EQUIPMENT

Index to Switching Equipment By Transmission Type

The index to switching systems has been broken down according to the transmission type — voice, data, nonintegrated voice/data or integrated voice/data — of the different products. Within each section of the index products are grouped alphabetically by vendor and contain the unit price as well as the page number on which the complete product listing can be found.

Voice Transmission Devices

VENDOR	MODEL	PRICE	PAGE
Action/Honeywell	ROADRUNNER DIGITAL EDITION	$1,000 to $1,500	B-50
Amdahl	MCF	N/A	B-50
Conversational Voice Terminal Corp.	CON MODE VOICE TERMINAL	$4,000 to $6,000	B-50
Data Switch Corp.	ANA-MAX	N/A	B-50
Dynatech Data Systems	CTM 1000 MATRIX	$500	B-51
GTE Business Communications Systems, Inc.	DPD 4800	N/A	B-51
Information Dynamics Corp.	IDX 230	N/A	B-52
	IDX 2120	N/A	B-52
Intecom America, Inc.	OMEGA II MODEL 412	N/A	B-52
Mitel, Inc.	SX-100	N/A	B-53
	SX-200	N/A	B-53
Motorola, Inc.	EMX SERIES SWITCHING EXCHANGES	N/A	B-53
Siemens Communications Systems	SD-192	N/A	B-53
	SD-192MX	N/A	B-53
T-Bar, Inc.	5000 SERIES	$350 to $500	B-53
Telecom Technologies	ECD 1000	N/A	B-53
	ECD 2000	$300 to $400	B-53
Tie Communications	MERCURY PBX	$300 to $400	B-53
Toshiba America, Inc.	PERCEPTION	N/A	B-53

Data Switching Devices

VENDOR	MODEL	PRICE	PAGE
Atlantic Research Corp.	DPS-4	$100 to $1,000	B-48
	FBS-1	$100 to $1,000	B-48
	RCS-100	$100 to $1,000	B-48
Bauhus Data Systems, Inc.	TRI CHANNEL SECURITY SYSTEMS	N/A	B-48
BBN Communications Corp.	C 30 PSN	N/A	B-48
Bytex Corp.	AUTOSWITCH 240	$100 to $200	B-48
Codex Corp.	IMS 7700	N/A	B-48
	IMS 7800	N/A	B-48
Commex, Ltd.	CNP-4R, -8R, -16E	N/A	B-48
Comunex, Inc.	TERMINAL CONCENTRATOR: MDS-8070	$600 to $820	B-48
Crosspoint Systems, Inc.	SD 450	N/A	B-48
Datapraks, Inc.	3274 CONTROLLER BACKUP SWITCH	N/A	B-48
Data Switch Corp.	MODEL 600	N/A	B-48
	MODEL 1000	N/A	B-48
	MODEL 1200	N/A	B-48
	XY-MAX-2840	N/A	B-48
DCA/TAC	SYSTEM 3LS NETSWITCH	N/A	B-48
Develcon Electronics, Inc.	9002 DATA SWITCH	N/A	B-48
	9006 DATA SWITCH	N/A	B-48
Digilog, Inc.	NETWORK ACCESS SWITCH (NAS)	$600 to $700	B-48
Digital Controls Corp.	DIGITAL CONTROLS 3403	$695 to $19,500	B-48
	DIGITAL CONTROLS 3421	$695 to $19,500	B-48
	DIGITAL CONTROLS 4101	$835 to $19,500	B-48
Digital Laboratories, Inc.	3R	$395	B-48
	MICRO MATRIX	$245	B-48
	MICRO MATRIX II	$695	B-48
	TLC	$245	B-48
	WAP	$395	B-51
Duracom Corp.	SELECT 8	$400 to $6,000	B-51
Dynatech Data Systems	CHANNEL ACCESS SWITCH	$400 to $6,000	B-51

Switching Equipment Index

VENDOR	MODEL	PRICE	PAGE
Dynatech Data Systems	CTM 1000	$400 to $6,000	B-51
	DYNASWITCH	$400 to $6,000	B-51
	DYNASWITCH MARK II	$4,000	B-51
	VS CHANNEL ACCESS SWITCH	$4,000	B-51
Dynatech Packet Technology, Inc.	MULTI SWITCH X.2	$4000	B-51
Electrodata, Inc.	CLS 2	$125	B-51
Electronic Interface Associates	S 8	$1,600 to $1,800	B-51
	S 24	$100 to $299	B-51
Ericsson Pragmatic, Inc.	ERIPAX	$1,600 to $1,600	B-51
Gandalf Data, Inc.	PACX TM	$135 to $600	B-51
Ideographix, Inc.	IPX 5410	N/A	B-52
Infotron Systems Corp.	IS 4000/4002 INTELLIGENT SWITCHING SYSTEM	$140 to $240	B-54
Intelligent Business Systems, Inc.	CSX 1024	N/A	B-54
ITT Telecom Products, Inc.	DPS 1500	N/A	B-54
M/A-Com, Inc.	IDX 3000	$1,450	B-56
Micom Systems, Inc.	MICRO 800	$100 to $250	B-56
Network Products, Inc.	BABYNET	$1,450	B-56
Paradyne Corp.	PDN 5200	$500 to $2,000	B-57
Philips Electronics Instruments, Inc.	FLEXPAC	$600 to $1,100	B-57
Syscom, Inc.	STORE AND FORWARD MESSAGE SWITCH	N/A	B-58
T-Bar, Inc.	3690/3800 SERIES COMPUTER SWITCH MATRIX	$800 to $1,100	B-58
	VIRTUAL SWITCH MATRIX	$585	B-58
Tellabs, Inc.	331 XPLEXER	$875	B-59
Terminal Data Corp.	DATA SWITCH	$129 to $300	B-59
Western Datacom	UNISWITCH 1020	$800	B-59
Western Telematic, Inc.	ABS	$88	B-59
	CAS 41	$395	B-59
	CAS 164	$795	B-59
	PSU 41	$395	B-59
	TM 41	$295	B-59
Xyplex, Inc.	XYPLEX SYSTEM	N/A	B-59

Nonintegrated Voice/Data Switching Devices

VENDOR	MODEL	PRICE	PAGE
American Telecom, Inc.	FOCUS ELITE	N/A	B-50
AT&T Information Systems, Inc.	DIMENSION	N/A	B-50
Codex Corp.	IMS 7760	N/A	B-50
Computer Systems	TS/80	$320 to $500	B-50
Data Switch Corp.	ANA-MAX	N/A	B-50
Daycom Corp.	DAYCOM	N/A	B-50
GTE Business Communications Systems, Inc.	OMNI PBX	N/A	B-51
Harris Corp.	400-L (400L-2 AC OR DC)	$320 to $500	B-52
	400-M (400M-2 AC OR DC)	$350 to $800	B-52
	1201 (1201-3 AC OR DC)	$400 to $550	B-52
	1202 (1202-6 AC OR DC)	$290 to $600	B-52
	1204/1204-6 DC	$400 to $550	B-52
	1205/1205-3 DC	$450 to $800	B-52
	HARRIS 110S & 110M	N/A	B-52
Hitachi America, Ltd.	DX 30/40	N/A	B-52
IPC Technology, Ltd.	DPX III, 100,160,1000	N/A	B-52
ITT Business Communications Corp.	SYSTEM 3100	$800 to $800	B-54
Iwatsu America, Inc.	OMEGA III MODEL 818	N/A	B-55
Mako Labs, Inc.	MAX-128P	$120	B-55
	MAX-212	$75	B-55
	MAX-424	$120	B-55
	MAX-824	$140	B-55
Morgan Data Systems	ANSWERNET	N/A	B-56
Solid State Systems, Inc.	CEO	$300 to $750	B-58
T-Bar, Inc.	MASS	$360 to $500	B-58
	5900 SERIES PATCH	$85 to $150	B-58
Telenetron Info Switch	INFO SWITCH ACD	N/A	B-59
Tele/Resources	T R 150 SERIES	$300	B-59

Integrated Voice/Data Switching Devices

VENDOR	MODEL	PRICE	PAGE
Amtelco	EVE	N/A	B-50
	LEPRECHAUN	N/A	B-46
	MINI MESSAGE CENTER	N/A	B-46
Anderson Jacobson, Inc.	10X-1000 INTEGRATED OFFICE EXCHANGE	$500 to $800	B-46

Switching Equipment Index

VENDOR	MODEL	PRICE	PAGE
AT&T Information Systems, Inc.	SYSTEM 85	$870 to $1,050	B-46
CXC Corp.	ROSE	N/A	B-56
Intecom, Inc.	IBX TM	$1000	B-56
Interconnect Planning Corp.	DPX 1000	$600 to $1200	B-56
	DPX 100	$600 to $800	B-56
	DPX 160	$600 to $900	B-56
ITT Telecom Products, Inc.	1210 SYSTEM	N/A	B-56
	1240	$200 to $300	B-56
Iwatsu America, Inc.	OMEGA IV IDS-128	N/A	B-54
	OMEGA IV IDS-824/1648	N/A	B-56
Mitel, Inc.	SX-5	N/A	B-56
	SX-10	$3,000	B-56
	SX-20	$8,300	B-56
Motorola, Inc.	EMX SERIES RADIO TELEPHONE	N/A	B-56
Northern Telecom, Inc.	DMS 10	$250 to $500	B-56
	DMS 100	$300 to $500	B-56
	DMS 200	N/A	B-56
	SL 1	N/A	B-56
	SL 100	N/A	B-56
	CSV 24B	N/A	B-56
OKI Electronics of America, Inc.	SPECTRUM 4000	N/A	B-57
	SPECTRUM 100	N/A	B-57
	SPECTRUM 700	N/A	B-57
Peripherales Corp.	T-COMM	N/A	B-57
ProLink Corp.	PROLINK	$500 to $800	B-57
Rockwell International Corp.	GALAXY ACD	N/A	B-57
Rolm Corp.	VSCBX	N/A	B-57
	CBX II 8000 CPU	N/A	B-57
	CBX II 9000 CPU	N/A	B-57
Siemens Communications Systems	SATURN II	N/A	B-56
	SATURN III	N/A	B-56
Toshiba Industries, Inc.	MC 56 56T	N/A	B-56
United Technologies/Lenar Corp.	UTX 5000	$650	B-56
	UTX 1001	N/A	B-56
	UTX 1200	$950	B-56
Ztel, Inc.	PNX	$800 to $1000	B-59

Switching Equipment

ACTION/HONEYWELL
ROADRUNNER DIGITAL EDITION
Equipment Type: Tandem
Transmission: Voice, Data, Integrated Voice/Data, Video
Switch Technology: Digital
Switching Matrix: Time/Space/Time
Modulation Method: PCM
Maximum Trunks Supported: 4,096
Attendant Consoles (Maximum): 7
Matrix Architecture: Nonblocking, 100%
Maximum Transmission Speeds:
Voice: 64,000 bit/sec
Data: 1,544,000 bit/sec
Advanced Features: T-1 Carrier Interface, X.25 Interface, Security, Diagnostics, Data Security, Common Channel Switch
Price:
Purchase: $1,000 to $1,500
Distribution Method: End user
Number Installed to Date: 10 to 25
Date First Installed: September 1982
(See Vendor Profile Page V-1)

AMERICAN TELECOM, INC.
FOCUS ELITE
Equipment Type: PBX
Transmission: Nonintegrated Voice/Data
Switch Technology: Digital
Switching Matrix: Time Division
Modulation Method: DM
Maximum Trunks Supported: 56
Maximum Stations Supported: 288
Attendant Consoles (Maximum): 4
Matrix Architecture: Nonblocking
Maximum Simultaneous Transmissions: 128
Advanced Features: User Programmable, Security, Diagnostics, Data Security
Distribution Method: Third-party
Number Installed to Date: More than 100
Date First Installed: September 1976
(See Vendor Profile Page V-2)

AMTELCO
EVE
Equipment Type: PBX
Transmission: Integrated Voice/Data
Switch Technology: Digital
Switching Matrix: PCM
Modulation Method: PCM
Maximum Trunks Supported: 24
Maximum Stations Supported: 2,000
Attendant Consoles (Maximum): 12
Matrix Architecture: Nonblocking, 100%
Maximum Simultaneous Transmissions: 12
Maximum Transmission Speeds:
Voice: 64,000 bit/sec
Advanced Features: T-1 Carrier Interface, OA, Security, Data Security
Advanced Attendant Features: Paperless Phone
Distribution Method: End user
Number Installed to Date: 1 to 10
Date First Installed: May 1983
(See Vendor Profile Page V-2)

AMTELCO
LEPRECHAUN
Equipment Type: PBX
Transmission: Integrated Voice/Data
Switch Technology: Analog
Switching Matrix: Relay
Maximum Trunks Supported: 1
Maximum Stations Supported: 14
Attendant Consoles (Maximum): 1
Matrix Architecture: Nonblocking, 100%
Maximum Simultaneous Transmissions: 1
Advanced Features: OA, Diagnostics
Distribution Method: End user
Number Installed to Date: 25 to 50
Date First Installed: September 1981

AMTELCO
LITTLE GUY
Equipment Type: PBX
Switch Technology: Analog
Switching Matrix: Relay
Maximum Trunks Supported: 4
Attendant Consoles (Maximum): 1
Matrix Architecture: Nonblocking, 100%
Maximum Simultaneous Transmissions: 1
Advanced Features: OA, Diagnostics
Distribution Method: End user
Number Installed to Date: 25 to 50
Date First Installed: September 1982

AMTELCO
MCF
Equipment Type: PBX
Transmission: Voice
Switch Technology: Analog
Switching Matrix: Relay
Maximum Trunks Supported: 36
Maximum Stations Supported: 900
Attendant Consoles (Maximum): 12
Matrix Architecture: Blocking
Maximum Simultaneous Transmissions: 36
Advanced Features: OA, Diagnostics
Advanced Attendant Features: Electronic Mail, Corporate Message Center, Information Retrieval
Distribution Method: End user
Number Installed to Date: 10 to 25
Date First Installed: March 1982

AMTELCO
MINI MESSAGE CENTER
Equipment Type: PBX
Transmission: Integrated Voice/Data
Switch Technology: Analog
Switching Matrix: Relay
Maximum Trunks Supported: 1
Maximum Stations Supported: 14
Attendant Consoles (Maximum): 100
Matrix Architecture: Nonblocking, 100%
Maximum Simultaneous Transmissions: 1
Advanced Features: OA, Diagnostics
Distribution Method: End user
Date First Installed: March 1984

ANDERSON JACOBSON, INC.
10X-1000 (INTEGRATED OFFICE EXCHANGE)
Equipment Type: PABX
Transmission: Integrated Voice/Data
Switch Technology: Digital
Modulation Method: PCM
Maximum Trunks Supported: 1,536
Maximum Stations Supported: 16,000
Matrix Architecture: Nonblocking, 100%
Advanced Features: User Programmable, Digitizes at Handset (End-to-End Digital), T-1 Carrier Interface, X.25 Interface, LAN Capability (Micro/Mini/Mainframe), Voice Store and Forward, OA, Security, Diagnostics, Data Security, Energy Control/Management, RJE to Host Interface, Protocol Conversion
Price:
Lease: $40 to $60
Price:
Purchase: $500 to $800
Average Monthly Maintenance: $6
Distribution Method: OEM, Third-party
(See Vendor Profile Page V-2)

ATLANTIC RESEARCH CORP.
DPS-4
Equipment Type: Data Switch
Transmission: Data
Switch Technology: Digital
Matrix Architecture: Nonblocking
Maximum Transmission Speeds:
Data: 2,000,000 bit/sec
Price:
Purchase: $100 to $1,000
Distribution Method: End user
Number Installed to Date: 10 to 25
Date First Installed: January 1978
(See Vendor Profile Page V-3)

ATLANTIC RESEARCH CORP.
PBS 1
Equipment Type: Data Switch
Transmission: Data
Switch Technology: Digital
Matrix Architecture: Nonblocking
Maximum Transmission Speeds:
Data: 2,000,000 bit/sec
Price:
Purchase: $100 to $1,000
Distribution Method: End user
Number Installed to Date: 10 to 25
Date First Installed: January 1978

ATLANTIC RESEARCH CORP.
RCS-100
Equipment Type: Data Switch
Transmission: Data
Switch Technology: Digital
Matrix Architecture: Nonblocking
Maximum Transmission Speeds:
Data: 2,000,000 bit/sec
Price:
Purchase: $100 to $1,000
Distribution Method: End user
Number Installed to Date: 10 to 25

AT&T INFORMATION SYSTEMS, INC.
DIMENSION
Equipment Type: ICBX
Transmission: Nonintegrated Voice/Data
Switch Technology: Analog
Switching Matrix: Time Division
Modulation Method: PAM
Maximum Trunks Supported: 1,100
Maximum Stations Supported: 7,000
Attendant Consoles (Maximum): 480
Matrix Architecture: Blocking
Maximum Transmission Speeds:
Data: 9,600 bit/sec
Advanced Features: User Programmable, T-1 Carrier Interface, X.25 Interface, Voice Store and Forward, OA, Security, Diagnostics, Data Security, Energy Control/Management, RJE to Host Interface
Advanced Attendant Features: Electronic Mail, Text Message, Uniform Wiring
Distribution Method: End user
Number Installed to Date: More than 100
Date First Installed: March 1975
(See Vendor Profile Page V-3)

AT&T INFORMATION SYSTEMS, INC.
SYSTEM 85
Equipment Type: ICBX
Transmission: Integrated Voice/Data
Switch Technology: Digital
Switching Matrix: Time Division
Modulation Method: PCM
Maximum Trunks Supported: 2,250
Maximum Stations Supported: 7,000
Attendant Consoles (Maximum): 480
Matrix Architecture: Nonblocking, 100%
Maximum Transmission Speeds:
Voice: 64,000 bit/sec
Data: 64,000 bit/sec
Advanced Features: User Programmable, Digitizes at Handset (End-to-End Digital), T-1 Carrier Interface, X.25 Interface, LAN Capability (Micro/Mini/Mainframe), OA, Security, Diagnostics, Data Security, Energy Control/Management, RJE to Host Interface
Advanced Attendant Features: Electronic Mail, Text Message Uniform, Wiring
Price:
Purchase: $870 to $1,089
Distribution Method: End user
Number Installed to Date: More than 100
Date First Installed: April 1983

BACKUS DATA SYSTEMS, INC.
TRI CHANNEL SECURITY SYSTEMS
Equipment Type: Data Switch
Transmission: Data
Switch Technology: Digital
Switching Matrix: Time Division
Maximum Simultaneous Transmissions: 3
Maximum Transmission Speeds:
Data: 9,600 bit/sec
Advanced Features: LAN Capability (Micro/Mini), Security, Data Security

FIRST WE MADE IT SMART.

THEN WE MADE IT SIMPLE.

Number Installed to Date: 50 to 100
(See Vendor Profile Page V-3)

BBN COMMUNICATIONS CORP.
C 30 PSN (PACKET SWITCH NODE)
Equipment Type: Packet Processor
Transmission: Data
Switch Technology: Digital
Switching Metric: Statistical
Maximum Trunks Supported: 14
Attendant Consoles (Maximum): 1
Maximum Simultaneous Transmissions: 500
Maximum Transmission Speeds: Data: 64,000 bit/sec
Advanced Features: X.25 Interface, Security, Diagnostics, Data Security, Protocol Conversion
Distribution Method: End user, OEM
Number Installed to Date: More than 100
Date First Installed: 1981
(See Vendor Profile Page V-4)

Additional information provided for by vendor

BBNCC markets private packet-switching networks. The company's fully integrated line of products and services provides a total solution approach to managing network growth and controlling data communications cost. BBNCC designs, installs and maintains wide area X.25 networks for clients located worldwide.

BYTEX CORP.
AUTOSWITCH 340
Equipment Type: Matrix Switch
Transmission: Data
Switch Technology: Digital
Switching Metric: Time Division
Modulation Method: PAM
Maximum Trunks Supported: 240
Attendant Consoles (Maximum): 16
Matrix Architecture: Blocking
Maximum Simultaneous Transmissions: 120
Maximum Transmission Speeds: Data: 300,000 bit/sec
Advanced Features: User Programmable, LAN Capability (Micro/Mini/Mainframe), OA, Security, Diagnostics, User Expandable
Price:
Purchase: $100 to $200
Distribution Method: Third-party
Number Installed to Date: More than 100
Date First Installed: September 1981
(See Vendor Profile Page V-4)

CODEX CORP.
IMS 7700
Equipment Type: Data Switch
Transmission: Data
Switch Technology: Digital
Switching Metric: Time Division
Modulation Method: PCM
Maximum Stations Supported: 512
Attendant Consoles (Maximum): 1
Matrix Architecture: Nonblocking
Maximum Simultaneous Transmissions: 256
Maximum Transmission Speeds: Data: 19,200 bit/sec
Advanced Features: Diagnostics, Data Security
Distribution Method: End user
Number Installed to Date: More than 100
Date First Installed: 1980
(See Vendor Profile Page V-5)

CODEX CORP.
IMS 7760
Equipment Type: Data Switch
Transmission: Nonintegrated Voice/Data
Switch Technology: Digital
Switching Metric: Space Division
Modulation Method: PCM
Maximum Stations Supported: 1,440
Attendant Consoles (Maximum): 6
Matrix Architecture: Nonblocking
Maximum Simultaneous Transmissions: 720
Maximum Transmission Speeds: Data: 64,000 bit/sec
Advanced Features: User Programmable, Security, Diagnostics
Distribution Method: End user
Number Installed to Date: 50 to 100
Date First Installed: 1983

CODEX CORP.
IMS 7900
Equipment Type: PABX
Transmission: Data
Switch Technology: Digital
Switching Metric: Time Division
Modulation Method: PCM
Maximum Stations Supported: 508
Attendant Consoles (Maximum): 1
Matrix Architecture: Nonblocking
Maximum Simultaneous Transmissions: 254
Maximum Transmission Speeds: Data: 19,200 bit/sec
Advanced Features: Security, Diagnostics
Distribution Method: End user
Number Installed to Date: More than 100
Date First Installed: September 1980

COMDEX, LTD.
DNP-4R, -8R, -16E
Equipment Type: Data Switch
Transmission: Data
Switch Technology: Digital
Switching Metric: Statistical
Maximum Transmission Speeds: Data: 56,000 bit/sec
Advanced Features: RJE to Host Interface
Average Monthly Maintenance: $120
Distribution Method: End user
Number Installed to Date: 25 to 50
Date First Installed: 1982
(See Vendor Profile Page V-6)

COMMTEX, INC.
TERMINAL CONCENTRATOR; MDS-8979
Equipment Type: Data Switch
Transmission: Data
Switch Technology: Digital
Switching Metric: Time Division
Modulation Method: External
Maximum Trunks Supported: 20
Maximum Stations Supported: 125
Maximum Simultaneous Transmissions: 125
Maximum Transmission Speeds: Data: 19,200 bit/sec
Advanced Features: User Programmable, T-1 Carrier Interface, X.25 Interface, LAN Capability (Micro/Mini), OA, Security, Diagnostics, RJE to Host Interface, Protocol Conversion
Price:
Purchase: $600 to $920
Distribution Method: Third-party
Number Installed to Date: More than 100
Date First Installed: February 1981

COMPUTER SYSTEMS TS/80
Equipment Type: PABX
Transmission: Nonintegrated Voice/Data
Switch Technology: Digital
Switching Metric: Space Divsion
Modulation Method: DM
Maximum Trunks Supported: 50
Maximum Stations Supported: 400
Attendant Consoles (Maximum): 100
Matrix Architecture: Blocking
Maximum Transmission Speeds: Data: 16,200 bit/sec
Advanced Features: User Programmable, T-1 Carrier Interface, LAN Capability (Micro/Mini), Voice Store and Forward, OA, Diagnostics, Data Security, RJE to Host Interface, Protocol Conversion
Advanced Attendant Features: Integrated Communicanications, Data Switching
Price:
Purchase: $200 to $600
Distribution Method: End user, Third-party
Date First Installed: 1983
(See Vendor Profile Page V-7)

CONVERSATIONAL VOICE TERMINAL CORP.
CON MODE VOICE TERMINAL
Equipment Type: ACD
Transmission: Voice
Switch Technology: Analog/Digital
Advanced Features: User Programmable, Voice Store and Forward, OA
Price:
Lease: $200 to $300
Purchase: $4,000 to $6,000
Distribution Method: End user
Date First Installed: March 1984
(See Vendor Profile Page V-8)

CROSSPOINT SYSTEMS, INC.
SD480
Equipment Type: Data Switch
Transmission: Data
Switch Technology: Analog
Maximum Trunks Supported: 256
Maximum Stations Supported: 256
Attendant Consoles (Maximum): 1
Matrix Architecture: Nonblocking, 100%
Maximum Simultaneous Transmissions: 256
Maximum Transmission Speeds: Data: 19,200 bit/sec
Advanced Features: User Programmable, Diagnostics
Distribution Method: End user
Number Installed to Date: 50 to 100
Date First Installed: September 1982
(See Vendor Profile Page V-8)

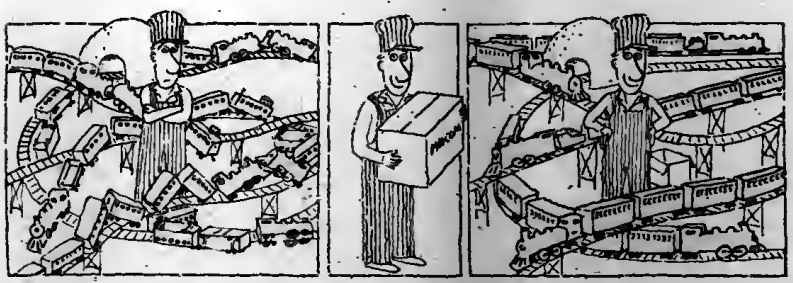
CXC CORP.
ROSE
Equipment Type: PBX
Transmission: Integrated Voice/Data
Switch Technology: Digital
Switching Metric: Time/Space/Time
Modulation Method: PCM
Maximum Stations Supported: 12,288
Attendant Consoles (Maximum): 192
Matrix Architecture: Nonblocking
Maximum Simultaneous Transmissions: 12,000
Maximum Transmission Speeds: Voice: 512,000 bit/sec Data: 512,000 bit/sec
Advanced Features: User Programmable, Digitizes at Handset (End-to-End Digital), T-1 Carrier Interface, X.25 Interface, LAN Capability (Micro/Mini/Mainframe), Voice Store and Forward, OA, Security, Diagnostics, Data Security, RJE to Host Interface, Protocol Conversion
Distribution Method: OEM
Date First Installed: December 1983
(See Vendor Profile Page V-9)

DATAPROBE, INC.
3274 CONTROLLER BACKUP SWITCH
Equipment Type: Coaxial Switch
Transmission: Data
Switch Technology: Analog/Digital
Switching Metric: Magnetic Latching
Maximum Stations Supported: 128
Matrix Architecture: Blocking
Advanced Features: X.25 Interface, Diagnostics, Data Security
Distribution Method: End user
Number Installed to Date: 1 to 10
Date First Installed: October 1982
(See Vendor Profile Page V-9)

DATA SWITCH CORP.
ANA-MAX
Equipment Type: Analog Switch
Transmission: Voice, Data
Switch Technology: Digital
Maximum Trunks Supported: 72
Maximum Stations Supported: 1,024
Attendant Consoles (Maximum): 7
Matrix Architecture: Blocking
Maximum Simultaneous Transmissions: 1,024
Maximum Transmission Speeds: Data: 19,200 bit/sec
Advanced Features: User Programmable, Security, Diagnostics
Advanced Attendant Features: CMS Control Console, Controls 16 ANA-MAX, XY-MAX Switches
Distribution Method: End user
Date First Installed: April 1983
(See Vendor Profile Page V-9)

WHEN IT COMES TO CONTROLLING YOUR DATA NETWORK,

THE IDX-3000™ PUTS YOU ON THE RIGHT TRACK.



Control can be a major problem with a large network. That's why our IDX-3000 Local Communication System features the IDX-Net™ network controller. With IDX-Net, you handle configuration management on-line. You can manage major network topology changes, such as disaster recovery, with only a few keystrokes.

IDX-Net lets you access network control commands and diagnostics from any terminal in the network, including dial-up. This means that you, or M/A-COM Linkabit's Hotline Service, can diagnose your problem in seconds without having to be in your computer room.

Programmability
IDX-Net's 68000-based network controller software provides you with the capability to interface host-resident application programs to the network. You can build-in your own custom-tailored network management features.

User convenience
In addition to traditional data PABX port contention and resource selection, IDX-Net provides your authorized users with many of the features offered by modern telephone systems. They can connect, disconnect and hold lines to multiple computer resources and execute third-party connects.

For the office of now
With the IDX-3000, you can start with a small system that fits your current needs and budget, then grow to obtain non-blocking, full-duplex asynchronous communication for as many as 3072 lines, all at data rates of up to 19.2 Kbps. The IDX-3000's proven TI-based technology is fault-tolerant, with optional redundancy features throughout its distributed architecture, and automatic, continuous self-testing. The IDX-3000 isn't one of those products of the future. It's here now—proven, in use, and backed by M/A-COM, one of the nation's largest communication companies.

If you want to get control of your network, contact Ruth Stoffel at M/A-COM Linkabit, 3033 Science Park Road, San Diego, CA 92121, toll-free (800) 626-6640 or (619) 457-2340. We'll put you in control.

©1983 M/A-COM Linkabit, Inc.
IDX-3000 and IDX-Net are registered trademarks of M/A-COM Linkabit, Inc.

THE NETWORK YOU CAN CONTROL

M/ACOM

Switching Equipment

DATA SWITCH CORP.
MODEL 600
Equipment Type: Computer/Peripheral Switch
Transmission: Data
Switch Technology: Digital
Maximum Trunks Supported: 4
Maximum Stations Supported: 12
Maximum Simultaneous Transmissions: 4
Maximum Transmission Speeds: Data: 6,000,000 bit/sec
Advanced Features: User Programmable
Advanced Attendant Features: Can be Upgraded to Model 1200, Larger Matrix Size and CMS Controlled
Distribution Method: End user
Date First Installed: December 1983

DATA SWITCH CORP.
MODEL 1000
Equipment Type: Computer/Peripheral Switch
Transmission: Data
Switch Technology: Digital
Maximum Trunks Supported: 16
Maximum Stations Supported: 48
Attendant Consoles (Maximum): 7
Maximum Simultaneous Transmissions: 16
Maximum Transmission Speeds: Data: 6,000,000 bit/sec
Advanced Features: User Programmable, Security, Diagnostics
Advanced Attendant Features: CMS Controlled Console Operates 56 Model 1000 Units, Switches at Remote and Local Sites
Distribution Method: End user
Date First Installed: 1978

DATA SWITCH CORP.
MODEL 1200
Equipment Type: Computer/Peripheral Switch
Transmission: Data
Switch Technology: Digital
Maximum Trunks Supported: 16
Maximum Stations Supported: 24
Attendant Consoles (Maximum): 7
Maximum Simultaneous Transmissions: 16
Maximum Transmission Speeds: Data: 6,000,000 bit/sec
Advanced Features: User Programmable, Security, Diagnostics
Advanced Attendant Features: CMS Controlled Console, Operates 56 Model 1200 Units, Switches at Remote and Local Sites
Distribution Method: End user
Date First Installed: 1978

DATA SWITCH CORP.
XY-MAX-3040
Equipment Type: Data Switch
Transmission: Data
Switch Technology: Digital
Maximum Trunks Supported: 512
Maximum Stations Supported: 512
Attendant Consoles (Maximum): 7
Matrix Architecture: Nonblocking, 100%
Maximum Transmission Speeds: Data: 72,000 bit/sec
Advanced Features: User Programmable
Advanced Attendant Features: CMS Control Console, Controls 16 XY-MAX, ANA-MAX Switches
Average Monthly Maintenance: $75
Distribution Method: End user
Date First Installed: April 1983

DAYCOM CORP.
DAYCOM
Equipment Type: PBX
Transmission: Nonintegrated Voice/Data, Integrated Voice/Data
Switch Technology: Digital
Switching Matrix: Time Division, Data
Modulation Method: PCM
Attendant Consoles (Maximum): 10
Matrix Architecture: Nonblocking, 100%
Maximum Transmission Speeds: Voice: 256,000 bit/sec
Distribution Method: End user
Number Installed to Date: More than 100
(See Vendor Profile Page V-10)

DCA/TAC
SYSTEM 3LS NETSWITCH
Equipment Type: Data Switch
Transmission: Data
Switch Technology: Digital
Switching Matrix: STDM
Maximum Trunks Supported: 11
Maximum Stations Supported: 1,472
Attendant Consoles (Maximum): 1
Matrix Architecture: Nonblocking
Maximum Transmission Speeds: Data: 6,600 bit/sec
Advanced Features: User Programmable, OA, Security, Diagnostics, Energy Control/Management
Distribution Method: End user, OEM, Third-party
Number Installed to Date: 10 to 25
Date First Installed: January 1982
(See Vendor Profile Page V-10)

DEVELCON ELECTRONICS, INC.
9068 DATA SWITCH
Equipment Type: Data Switch
Transmission: Data
Switch Technology: Digital
Switching Matrix: Time/Space/Time
Maximum Stations Supported: 284
Matrix Architecture: Nonblocking
Maximum Simultaneous Transmissions: 141
Maximum Transmission Speeds: Data: 19,200 bit/sec
Advanced Features: User Programmable, Digitizes at Handset (End-to-End Digital), T-1 Carrier Interface, X.25 Interface, LAN Capability (Micro/Mini/Mainframe), Security, Diagnostics, Data Security, RJE to Host Interface, Protocol Conversion
Distribution Method: End user
Number Installed to Date: More than 100
Date First Installed: 1978
(See Vendor Profile Page V-10)

DEVELCON ELECTRONICS, INC.
9068 DATA SWITCH
Equipment Type: Data Switch
Transmission: Data
Switch Technology: Analog/Digital
Switching Matrix: Time Division
Maximum Stations Supported: 2,012
Matrix Architecture: Nonblocking, 100%
Maximum Simultaneous Transmissions: 2,012
Maximum Transmission Speeds: Data: 19,200 bit/sec
Advanced Features: User Programmable, Digitizes at Handset (End-to-End Digital), T-1 Carrier Interface, LAN Capability (Micro/Mini/Mainframe), Security, Diagnostics, Data Security, RJE to Host Interface
Advanced Attendant Features: X.25 Interface, Protocol Converter
Distribution Method: End user
Number Installed to Date: More than 100
Date First Installed: September 1978

DIGILOG, INC.
NETWORK ACCESS SWITCH (NAS)
Equipment Type: Data Switch
Transmission: Data, Four-Wire Leased Lines
Switch Technology: Analog/Digital
Switching Matrix: Time Division
Maximum Stations Supported: 240
Attendant Consoles (Maximum): 2
Matrix Architecture: Nonblocking, 100%
Maximum Transmission Speeds: Voice: 8,000 bit/sec Data: 192 bit/sec
Price: Purchase: $600 to $700
Average Monthly Maintenance: $500
Distribution Method: End user
Date First Installed: February 1984
(See Vendor Profile Page V-10)

DIGITAL CONTROLS CORP.
DIGITAL CONTROLS 3408
Equipment Type: Data Switch
Transmission: Data
Switch Technology: Digital
Maximum Trunks Supported: 16
Maximum Stations Supported: 6
Price: Purchase: $985 to $16,500
Distribution Method: End user
Number Installed to Date: More than 100
Date First Installed: September 1982
(See Vendor Profile Page V-10)

DIGITAL CONTROLS CORP.
DIGITAL CONTROL 3421
Equipment Type: Data Switch
Transmission: Data
Switch Technology: Digital
Maximum Trunks Supported: 16
Maximum Stations Supported: 6
Price: Purchase: $985 to $16,500
Distribution Method: End user
Number Installed to Date: 50 to 100
Date First Installed: 1982

DIGITAL CONTROLS CORP.
DIGITAL CONTROLS 4101
Equipment Type: Data Switch
Transmission: Data
Switch Technology: Digital
Maximum Trunks Supported: 16
Maximum Stations Supported: 6
Price: Purchase: $935 to $16,500
Distribution Method: End user
Number Installed to Date: 10 to 25
Date First Installed: 1983

DIGITAL LABORATORIES, INC.
3R
Equipment Type: Data Switch
Transmission: Data
Switch Technology: Digital
Modulation Method: Operational Amplifiers
Maximum Trunks Supported: 3
Maximum Stations Supported: 3
Attendant Consoles (Maximum): 3
Price: Purchase: $395
Distribution Method: End user
Number Installed to Date: More than 100
Date First Installed: 1977
(See Vendor Profile Page V-10)

DIGITAL LABORATORIES, INC.
MICRO MATRIX
Equipment Type: Data Switch
Transmission: Data
Switch Technology: Digital
Modulation Method: Operational Amplifiers
Maximum Trunks Supported: 6
Maximum Stations Supported: 6
Attendant Consoles (Maximum): 6
Maximum Simultaneous Transmissions: 6
Price: Purchase: $995
Number Installed to Date: More than 100
Date First Installed: 1980

DIGITAL LABORATORIES, INC.
MICRO MATRIX 8
Equipment Type: Data Switch
Transmission: Data
Switch Technology: Digital
Modulation Method: Operational Amplifiers
Maximum Trunks Supported: 6
Maximum Stations Supported: 6
Attendant Consoles (Maximum): 6
Price: Purchase: $995
Distribution Method: End user
Number Installed to Date: More than 100
Date First Installed: 1981

DIGITAL LABORATORIES, INC.
TLC
Equipment Type: Data Switch
Transmission: Data
Switch Technology: Digital
Modulation Method: Operational Amplifiers
Maximum Trunks Supported: 3
Maximum Stations Supported: 3
Attendant Consoles (Maximum): 3
Price: Purchase: $245
Distribution Method: End user
Number Installed to Date: More than 100
Date First Installed: 1982

DIGITAL LABORATORIES, INC.
WAP
Equipment Type: Data Switch
Transmission: Data
Switch Technology: Digital
Modulation Method: Operational Amplifiers
Maximum Trunks Supported: 8
Maximum Stations Supported: 5
Attendant Consoles (Maximum): 8
Price:
Purchase: $395
Distribution Method: End user
Number Installed to Date: 50 to 100
Date First Installed: 1983

DRAGON CORP.
SELECT 8
Equipment Type: Data Switch
Transmission: Data
Switch Technology: Analog
Maximum Stations Supported: 8
Price:
Purchase: $335 to $420
Distribution Method: End user, OEM, Third-party
Number Installed to Date: More than 100
Date First Installed: September 1982
(See Vendor Profile Page V-11)

DYNATECH DATA SYSTEMS
CHANNEL ACCESS SWITCH
Equipment Type: Data Switch
Transmission: Data
Switch Technology: Digital
Maximum Stations Supported: 16
Price:
Purchase: $400 to $6,000
Number Installed to Date: 50 to 100
(See Vendor Profile Page V-11)

DYNATECH DATA SYSTEMS
CTM 1600
Equipment Type: Data Switch
Transmission: Data
Switch Technology: Digital
Switching Matrix: Time/Space/Time
Maximum Stations Supported: 16
Price:
Purchase: $400 to $6,000
Distribution Method: End user
Number Installed to Date: 10 to 25

DYNATECH DATA SYSTEMS
CTM 1600 MATRIX
Equipment Type: Data Switch
Transmission: Voice, Data, Integrated Voice/Data
Switch Technology: Digital
Switching Matrix: Time Division, Space Division
Modulation Method: Analog
Maximum Stations Supported: 2,000
Attendant Consoles (Maximum): 16
Matrix Architecture: Nonblocking, 100%
Maximum Transmission Speeds:
Voice: 1,000,000 bit/sec
Data: 64,000 bit/sec
Advanced Features: User Programmable, Digitize at Handset (End-to-End Digital), LAN Capability (Micro/Mini/Mainframe), Security, Diagnostics, Data Security
Advanced Attendant Features: Storage Capability, Loading Reconfiguration, LED Alarm
Price:
Purchase: $500
Distribution Method: End user, Third-party
Number Installed to Date: 10 to 25
Date First Installed: 1983

DYNATECH DATA SYSTEMS
DYNASWITCH
Equipment Type: Data Switch
Transmission: Data
Switch Technology: Digital
Maximum Stations Supported: 16
Price:
Purchase: $400 to $6,000
Distribution Method: End user
Number Installed to Date: More than 100

DYNATECH DATA SYSTEMS
DYNASWITCH MARK II
Equipment Type: Data Switch
Transmission: Data
Switch Technology: Digital
Maximum Stations Supported: 16
Price:
Purchase: $400 to $6,000
Distribution Method: End user
Number Installed to Date: More than 100

DYNATECH DATA SYSTEMS
VS CHANNEL ACCESS-SWITCH
Equipment Type: Data Switch
Transmission: Data
Switch Technology: Analog
Maximum Stations Supported: 16
Price:
Purchase: $400 to $6,000
Distribution Method: End user
Number Installed to Date: 25 to 50

DYNATECH PACKET TECHNOLOGY, INC.
MULTI SWITCH X.2
Equipment Type: Packet Processor
Transmission: Data
Switch Technology: Digital
Switching Matrix: Time Division
Maximum Trunks Supported: 8
Maximum Stations Supported: 127
Matrix Architecture: Nonblocking, 100%
Maximum Simultaneous Transmissions: 127
Maximum Transmission Speeds:
Data: 14,400 bit/sec
Advanced Features: User Programmable, X.25 Interface, LAN Capability (Micro/Mini/Mainframe), Security, Diagnostics, Data Security, Protocol Conversion
Price:
Purchase: $4,000
Distribution Method: End user
Number Installed to Date: More than 100
Date First Installed: June 1982
(See Vendor Profile Page V-11)

ELECTRODATA, INC.
CLS 2
Equipment Type: Data Switch
Transmission: Data
Switch Technology: Digital
Maximum Stations Supported: 2
Price:
Purchase: $125
Distribution Method: Third-party
Number Installed to Date: More than 100
Date First Installed: December 1976
(See Vendor Profile Page V-11)

ELECTRONIC INTERFACE ASSOCIATES
8 8
Equipment Type: Data Switch
Transmission: Data
Switch Technology: Digital
Maximum Stations Supported: 5
Price:
Purchase: $100 to $200
Distribution Method: End user
Number Installed to Date: More than 100
Date First Installed: 1980
(See Vendor Profile Page V-11)

ELECTRONIC INTERFACE ASSOCIATES
8 84
Equipment Type: Data Switch
Transmission: Data
Switch Technology: Digital
Maximum Stations Supported: 5
Price:
Purchase: $100 to $200
Distribution Method: End user
Number Installed to Date: More than 100

ERICSSON PROGRAMTIC, INC.
ERIPAX
Equipment Type: Packet Processor
Transmission: Data
Switch Technology: Digital
Maximum Trunks Supported: 1,500
Maximum Stations Supported: 1,500
Matrix Architecture: Nonblocking, 100%
Maximum Simultaneous Transmissions: 1,500
Maximum Transmission Speeds:
Data: 16,000 bit/sec
Advanced Features: X.25 Interface, LAN Capability (Micro/Mini/Mainframe), OA, Diagnostics, Data Security, Energy Control/Management, Protocol Conversion
Price:
Lease: $30 to $40
Purchase: $1,800 to $1,800
Distribution Method: End user
Number Installed to Date: 10 to 25
Date First Installed: January 1983
(See Vendor Profile Page V-11)

GANDALF DATA, INC.
PACX TM
Equipment Type: PACX
Transmission: Data
Switch Technology: Digital
Switching Matrix: Time Division, Space Division
Maximum Trunks Supported: 1,024
Maximum Stations Supported: 2,048
Attendant Consoles (Maximum): 1
Matrix Architecture: Nonblocking, 100%
Maximum Simultaneous Transmissions: 1,024
Maximum Transmission Speeds:
Data: 19,200 bit/sec
Advanced Features: User Programmable, T-1 Carrier Interface, X.25 Interface, OA, Security, Diagnostics, Data Security, RJE to Host Interface, Protocol Conversion
Price:
Purchase: $135 to $600
Average Monthly Maintenance: $300
Distribution Method: End user
Number Installed to Date: More than 100
(See Vendor Profile Page V-12)

GTE SPECIALTY COMMUNICATIONS SYSTEMS, INC.
DPD 4000
Equipment Type: PBX
Transmission: Voice, Data, Integrated Voice/Data
Switch Technology: Digital
Switching Matrix: Time Division, Space Division
Modulation Method: PCM
Maximum Trunks Supported: 4,800
Maximum Stations Supported: 12,288
Attendant Consoles (Maximum): 32
Matrix Architecture: Blocking
Maximum Simultaneous Transmissions: 4,608
Maximum Transmission Speeds:
Data: 64,000 bit/sec
Advanced Features: User Programmable, Digitize at Handset (End-to-End Digital), T-1 Carrier Interface, X.25 Interface, LAN Capability (Micro/Mini/Mainframe), Voice Store and Forward, OA, Security, Diagnostics, Data Security, RJE to Host Interface, Protocol Conversion
Advanced Attendant Features: Dual Bus Architecture
Price:
Purchase: $300 to $600
Distribution Method: End user
Number Installed to Date: 50 to 100
Date First Installed: September 1978
(See Vendor Profile Page V-13)

GTE SPECIALTY COMMUNICATIONS SYSTEMS, INC.
OMNI PBX
Equipment Type: PBX
Transmission: Voice, Data, Integrated Voice/Data
Switch Technology: Digital
Switching Matrix: Time Division, Space Division
Modulation Method: PCM
Maximum Trunks Supported: 1,024
Maximum Stations Supported: 2,000
Attendant Consoles (Maximum): 8
Matrix Architecture: Blocking
Maximum Simultaneous Transmissions: 384
Maximum Transmission Speeds:
Data: 64,000 bit/sec
Advanced Features: User Programmable, Digitize at Handset (End-to-End Digital), T-3 Carrier Interface, X.25 Interface, LAN Capability (Micro/Mini/Mainframe), Voice Store and Forward, OA,

Security, Diagnostics, Data Security, RJE to Host Interface, Protocol Conversion
Advanced Attendant Features: Dual Bus Architecture
Distribution Method: End user
Number Installed to Date: More than 100
Date First Installed: September 1978

HARRIS CORP.
400-L (400L-2 AC OR DC)
Equipment Type: PABX
Transmission: Nonintegrated Voice/Data
Switch Technology: Digital
Switching Matrix: Time Division
Modulation Method: DM
Maximum Trunks Supported: 56
Maximum Stations Supported: 440
Attendant Consoles (Maximum): 2
Matrix Architecture: Blocking
Maximum Simultaneous Transmissions: 146
Maximum Transmission Speeds:
Data: 9,600 bit/sec
Advanced Features: User Programmable, LAN Capability (Micro/Mini/Mainframe), Data Security
Price:
Purchase: $320 to $600
Distribution Method: Third-party
Number Installed to Date: 1 to 10
Date First Installed: January 1984
(See Vendor Profile Page V-14)

HARRIS CORP.
400-M (400M-2 AC OR DC)
Equipment Type: PABX
Transmission: Nonintegrated Voice/Data
Switch Technology: Digital
Switching Matrix: Time Division
Modulation Method: DM
Maximum Trunks Supported: 32
Maximum Stations Supported: 219
Attendant Consoles (Maximum): 2
Matrix Architecture: Nonblocking, 100%
Maximum Simultaneous Transmissions: 146
Maximum Transmission Speeds:
Data: 9,600 bit/sec
Advanced Features: User Programmable, LAN Capability (Micro/Mini/Mainframe), Data Security
Price:
Purchase: $350 to $500
Distribution Method: Third-party
Number Installed to Date: 1 to 10
Date First Installed: January 1984

HARRIS CORP.
1201 (1201-2 AC OR DC)
Equipment Type: PABX
Transmission: Nonintegrated Voice/Data
Switch Technology: Digital
Switching Matrix: Time Division
Modulation Method: DM
Maximum Trunks Supported: 48
Maximum Stations Supported: 448
Attendant Consoles (Maximum): 4
Matrix Architecture: Blocking
Maximum Simultaneous Transmissions: 146
Maximum Transmission Speeds:
Data: 9,600 bit/sec
Advanced Features: User Programmable, LAN Capability (Micro/Mini/Mainframe), Data Security
Price:
Purchase: $350 to $500
Distribution Method: End user
Number Installed to Date: 8,000
Date First Installed: January 1975

HARRIS CORP.
1202 (1202-6 AC OR DC)
Equipment Type: PABX
Transmission: Nonintegrated Voice/Data
Switch Technology: Digital
Switching Matrix: Time Division
Modulation Method: DM
Maximum Trunks Supported: 128
Maximum Stations Supported: 928
Matrix Architecture: Blocking
Maximum Simultaneous Transmissions: 146
Maximum Transmission Speeds:
Data: 9,600 bit/sec
Advanced Features: User Programmable, LAN Capability (Micro/Mini/Mainframe), Data Security
Price:
Purchase: $290 to $500
Distribution Method: End user
Number Installed to Date: 8,000
Number Installed to Date: More than 100
Date First Installed: June 1977

HARRIS CORP.
1304/1304-6 DC
Equipment Type: PACX
Transmission: Nonintegrated Voice/Data
Switch Technology: Digital
Switching Matrix: Time Division
Modulation Method: DM
Maximum Trunks Supported: 130
Maximum Stations Supported: 840
Matrix Architecture: Nonblocking, 100%
Maximum Simultaneous Transmissions: 145
Maximum Transmission Speeds:
Data: 9,600 bit/sec
Advanced Features: User Programmable, LAN Capability (Micro/Mini/Mainframe), Data Security
Price:
Purchase: $400 to $550
Distribution Method: Third-party
Number Installed to Date: More than 100
Date First Installed: October 1978

HARRIS CORP.
1305/1305-3 DC
Equipment Type: PABX
Transmission: Nonintegrated Voice/Data
Switch Technology: Digital
Switching Matrix: Time Division
Modulation Method: DM
Maximum Trunks Supported: 56
Maximum Stations Supported: 320
Matrix Architecture: Nonblocking, 100%
Maximum Simultaneous Transmissions: 145
Maximum Transmission Speeds:
Data: 9,600 bit/sec
Advanced Features: User Programmable, LAN Capability (Micro/Mini/Mainframe), Data Security
Price:
Purchase: $450 to $600
Distribution Method: Third-party
Number Installed to Date: More than 100
Date First Installed: May 1975

HARRIS CORP.
HARRIS 1100 & 1100I
Equipment Type: PBX
Transmission: Nonintegrated Voice/Data
Switch Technology: Analog
Switching Matrix: Time Division
Modulation Method: PAM
Maximum Trunks Supported: 20
Maximum Stations Supported: 111
Attendant Consoles (Maximum): 1
Matrix Architecture: Blocking
Maximum Simultaneous Transmissions: 30
Maximum Transmission Speeds:
Data: 9,600 bit/sec
Advanced Features: Data Security
Price:
Purchase: $650
Distribution Method: OEM, Third-party
Number Installed to Date: More than 100
Date First Installed: April 1982

HITACHI AMERICA, LTD.
IDX 30/45
Equipment Type: PBX
Transmission: Nonintegrated Voice/Data
Switch Technology: Digital
Switching Matrix: Time Division
Modulation Method: PCM
Maximum Trunks Supported: 256
Maximum Stations Supported: 1,272
Attendant Consoles (Maximum): 9
Maximum Simultaneous Transmissions: 128
Maximum Transmission Speeds:
Voice: 19,200 bit/sec
Data: 19,200 bit/sec
Advanced Features: User Programmable, Voice Store and Forward, OA, Diagnostics
Distribution Method: Third-party
Number Installed to Date: 50 to 100
Date First Installed: 1982
(See Vendor Profile Page V-14)

I P C TECHNOLOGY, LTD.
DPX III (100, 100, 1000)
Equipment Type: PABX
Transmission: Nonintegrated Voice/Data
Switch Technology: Digital
Switching Matrix: Time Division
Modulation Method: PWM
Maximum Trunks Supported: 1,000
Maximum Stations Supported: 1,000
Attendant Consoles (Maximum): 4
Matrix Architecture: Nonblocking, 100%
Maximum Simultaneous Transmissions: 600
Maximum Transmission Speeds:
Voice: 9,600 bit/sec
Data: 9,600 bit/sec
Advanced Features: User Programmable, Voice Store and Forward, OA, Security, Diagnostics, Data Security, RJE to Host Interface
Advanced Attendant Features: 40-Key Programmable Console
Advanced Attendant Features: Electronic Key Set
Average Monthly Maintenance: $4
Distribution Method: End user, Third-party
Number Installed to Date: More than 100
Date First Installed: 1979
(See Vendor Profile Page V-14)

INFOGRAPHIX, INC.
IPX 8416
Equipment Type: Message Switch
Transmission: Data
Switch Technology: Digital
Switching Matrix: Interrupt
Modulation Method: Multiplexer
Maximum Trunks Supported: 128
Maximum Stations Supported: 256
Attendant Consoles (Maximum): 256
Matrix Architecture: Blocking
Maximum Simultaneous Transmissions: 1
Maximum Transmission Speeds:
Data: 9,600 bit/sec
Advanced Features: X.25 Interface, Security, Diagnostics, Protocol Conversion
Distribution Method: Third-party
Number Installed to Date: 1 to 10
Date First Installed: 1972
(See Vendor Profile Page V-15)

INFORMATION DYNAMICS CORP.
IDX 230
Equipment Type: PBX
Transmission: Voice, Transparent to Data
Switching Matrix: Space Division
Maximum Trunks Supported: 10
Maximum Stations Supported: 30
Attendant Consoles (Maximum): 2
Matrix Architecture: Nonblocking, 100%
Maximum Simultaneous Transmissions: 14
Distribution Method: Third-party
Number Installed to Date: More than 100
Date First Installed: 1973
(See Vendor Profile Page V-15)

INFORMATION DYNAMICS CORP.
IDX 2120
Equipment Type: PBX
Transmission: Voice, Transparent to Data
Switching Matrix: Space Division
Maximum Trunks Supported: 120
Maximum Stations Supported: 30
Attendant Consoles (Maximum): 2
Matrix Architecture: Nonblocking, 100%
Maximum Simultaneous Transmissions: 14
Advanced Features: Diagnostics

Nearly Nine Million Computer-Involved People Around the World Rely on Our Publications For the News They Need.

We're CW Communications/Inc.; the world's largest publisher of computer-related newspapers and magazines. And wherever you go in the computer world, you'll find computer-involved professionals reading—and relying on—our publications. With highly trained and experienced editorial staffs all over the world, our publications give readers the best and most up-to-date information available in this rapidly changing industry.

Around the world:

We publish, co-publish or provide editorial services to the leading computer publications in the world, including publications in all of the following countries:

Scandinavia—Denmark, Sweden, Finland and Norway.
Western Europe—Germany, United Kingdom, France, Italy, Spain, Greece, the Netherlands.
The Mid-East—Kuwait, Saudi Arabia.
Asia/Africa—People's Republic of China, Korea, Japan, Singapore, Southeast Asia, South Africa.
The Southern Pacific—Australia.
Central and South America—Mexico, Brazil, Argentina, Chile.

In the United States:

In the world's largest computer market, we publish a whole series of publications that cover different aspects of the industry. Our largest publication, with more than half-a-million readers every week, is *Computerworld*, a weekly newspaper aimed primarily at larger computer users. Its companion publications include *Computerworld Office Automation*, *Computerworld On Communications* (each published semi-monthly) and a series of *Buyer's Guides* covering all major segments of the industry.

In addition, we publish *MICRO MARKETWORLD* for dealers, distributors, retailers and others involved in the microcomputer marketplace. For microcomputer users, we publish *InfoWorld*, *Microcomputing*, *PC WORLD*, *80 Micro*, *inCider*, *Run*, and *Hot CoCo*.

No one in the world publishes more computer information for more people in more countries than we do. And we'd be happy to give you more information on any of our publications. Just send a telex to our U.S. offices, attention CW International Marketing Services, (telex #95-1153) or write us at the address below.

CW COMMUNICATIONS/INC.

Switching Equipment

Distribution Method: Third-party
Number Installed to Date: More than 100
Date First Installed: 1978

SIEMENS SYSTEMS CORP.
IS 4000/4002 INTELLIGENT SWITCHING SYSTEM
Equipment Type: Data Switch
Transmission: Data
Switch Technology: Digital
Switching Matrix: Space/Time/Space
Maximum Stations Supported: 4,000
Attendant Consoles (Maximum): 2
Matrix Architecture: Nonblocking, 100%
Maximum Simultaneous Transmissions: 2,000
Maximum Transmission Speeds:
Data: 64,000 bit/sec
Advanced Features: User Programmable, LAN Capability (Micro/Mini/Mainframe), OA, Security, Diagnostics, Data Security, RJE to Host Interface
Price:
Lease: $9 to $15
Purchase: $140 to $240
Distribution Method: End user
Number Installed to Date: More than 100
Date First Installed: November 1981
(See Vendor Profile Page V-16)

SYTEK, INC.
SX TM
Equipment Type: SX
Transmission: Integrated Voice/Data
Switch Technology: Digital
Switching Matrix: Time Division
Modulation Method: PCM
Maximum Trunks Supported: 8,192
Maximum Stations Supported: 8,188
Attendant Consoles (Maximum): 16
Matrix Architecture: Nonblocking, 100%
Maximum Simultaneous Transmissions: 8,192
Maximum Transmission Speeds:
Voice: 64,000 bit/sec
Data: 10,000,000 bit/sec
Advanced Features: User Programmable, Digitizes at Handset (End-to-End Digital), T-1 Carrier Interface, X.25 Interface, Voice Store and Forward, OA, Diagnostics, RJE to Host Interface, Integrated
Price:
Purchase: $1,000
Distribution Method: End user
Number Installed to Date: 25 to 50
Date First Installed: September 1981
(See Vendor Profile Page V-16)

INTELLIGENT BUSINESS SYSTEMS, INC.
CSX 1684
Equipment Type: Data Switch
Transmission: Data
Switch Technology: Digital
Switching Matrix: Time Division
Maximum Trunks Supported: 2,048
Maximum Stations Supported: 2,048
Attendant Consoles (Maximum): 10
Matrix Architecture: Nonblocking, 100%
Maximum Simultaneous Transmissions: 512
Maximum Transmission Speeds:
Data: 64,000 bit/sec
Advanced Features: User Programmable, Digitizes at Handset (End-to-End Digital), X.25 Interface, LAN Capability (Micro/Mini/Mainframe), Diagnostics, Data Security, Protocol Conversion
Distribution Method: End user
Number Installed to Date: 1 to 10
Date First Installed: January 1984
(See Vendor Profile Page V-16)

INTERCONNECT PLANNING CORP.
DPX 100
Equipment Type: PABX
Transmission: Integrated Voice/Data
Switch Technology: Digital
Switching Matrix: Time Division
Modulation Method: PWM
Maximum Trunks Supported: 88
Maximum Stations Supported: 88
Attendant Consoles (Maximum): 2
Matrix Architecture: Nonblocking, 100%
Maximum Simultaneous Transmissions: 44
Maximum Transmission Speeds:
Voice: 9,600 bit/sec
Data: 9,600 bit/sec
Advanced Features: User Programmable, Digitizes at Handset (End-to-End Digital), T-1 Carrier Interface, LAN Capability (Mainframe), Security, Diagnostics
Price:
Purchase: $600 to $900
Distribution Method: End user
Number Installed to Date: 50 to 100
Date First Installed: September 1977
(See Vendor Profile Page V-16)

INTERCONNECT PLANNING CORP.
DPX 160
Equipment Type: PABX
Transmission: Integrated Voice/Data
Switch Technology: Digital
Switching Matrix: Time Division
Modulation Method: PWM
Maximum Trunks Supported: 152
Maximum Stations Supported: 152
Attendant Consoles (Maximum): 2
Matrix Architecture: Nonblocking, 100%
Maximum Simultaneous Transmissions: 76
Maximum Transmission Speeds:
Data: 9,600 bit/sec
Advanced Features: User Programmable, Digitizes at Handset (End-to-End Digital), T-1 Carrier Interface, Voice Store and Forward, Security, Diagnostics
Price:
Purchase: $600 to $900
Distribution Method: End user
Number Installed to Date: More than 100
Date First Installed: January 1977

INTERCONNECT PLANNING CORP.
DPX 1000
Equipment Type: PABX
Transmission: Integrated Voice/Data
Switch Technology: Digital
Switching Matrix: Time Division
Modulation Method: PWM
Maximum Trunks Supported: 1,016
Maximum Stations Supported: 1,016
Attendant Consoles (Maximum): 4
Matrix Architecture: Nonblocking, 100%
Maximum Simultaneous Transmissions: 508
Maximum Transmission Speeds:
Voice: 9,600 bit/sec
Data: 9,600 bit/sec
Advanced Features: User Programmable, Digitizes at Handset (End-to-End Digital), T-1 Carrier Interface, Voice Store and Forward, Security, Diagnostics, Data Security
Price:
Purchase: $900 to $1,200
Distribution Method: End user
Number Installed to Date: More than 100
Date First Installed: January 1977

ITT BUSINESS COMMUNICATIONS CORP.
SYSTEM 3100
Equipment Type: PBX
Transmission: Nonintegrated Voice/Data
Switch Technology: Digital
Switching Matrix: Time Division
Modulation Method: PCM
Maximum Trunks Supported: 280
Maximum Stations Supported: 288
Attendant Consoles (Maximum): 4
Matrix Architecture: Nonblocking
Maximum Simultaneous Transmissions: 160
Maximum Transmission Speeds:
Voice: 9,600 bit/sec
Data: 56,000 bit/sec
Advanced Features: User Programmable, Diagnostics, Protocol Conversion
Price:
Purchase: $600 to $850
Average Monthly Maintenance: $4
Distribution Method: End user
Number Installed to Date: More than 100
Date First Installed: January 1981
(See Vendor Profile Page V-17)

ITT TELECOM PRODUCTS, INC.
1210 SYSTEM
Equipment Type: Data Switch
Transmission: Integrated Voice/Data
Switch Technology: Digital
Switching Matrix: Time/Space/Time
Modulation Method: PCM
Maximum Trunks Supported: 16
Maximum Stations Supported: 50,000
Attendant Consoles (Maximum): 180
Matrix Architecture: Nonblocking
Maximum Simultaneous Transmissions: 7,500
Maximum Transmission Speeds:
Voice: 64,000 bit/sec
Data: 64,000 bit/sec
Advanced Features: User Programmable, Digitizes at Handset (End-to-End Digital), T-1 Carrier Interface, X.25 Interface, Voice Store and Forward, Diagnostics, Data Security
Distribution Method: End user
Number Installed to Date: More than 100
Date First Installed: 1978
(See Vendor Profile Page V-17)

ITT TELECOM PRODUCTS, INC.
1240
Equipment Type: DCU
Transmission: Integrated Voice/Data
Switch Technology: Digital
Switching Matrix: Time Division, Space Division
Modulation Method: PCM
Maximum Trunks Supported: 60,000
Maximum Stations Supported: 100,000
Attendant Consoles (Maximum): 300
Matrix Architecture: Nonblocking
Maximum Simultaneous Transmissions: 12,000
Maximum Transmission Speeds:
Voice: 64,000 bit/sec
Data: 4,000,000 bit/sec
Advanced Features: User Programmable, Digitizes at Handset (End-to-End Digital), T-1 Carrier Interface, X.25 Interface, LAN Capability (Micro/Mini/Mainframe), Voice Store and Forward, OA, Security, Diagnostics, Data Security, Energy Control/Management, Protocol Conversion
Price:
Purchase: $200 to $300
Distribution Method: End user
Number Installed to Date: 10 to 25
Date First Installed: 1981

ITT TELECOM PRODUCTS, INC.
DPS 1000
Equipment Type: Packet Processor
Transmission: Data
Switch Technology: Digital
Maximum Trunks Supported: 1,000
Maximum Simultaneous Transmissions: 2,000
Maximum Transmission Speeds:
Data: 25,600 bit/sec
Advanced Features: User Programmable, X.25 Interface, Security, Diagnostics, Protocol Conversion, IBM 3270, 2780, X.27 Interface
Distribution Method: End user
Number Installed to Date: 10 to 25
Date First Installed: 1981

IWATSU AMERICA, INC.
OMEGA IV IDS-188
Equipment Type: Hybrid
Transmission: Integrated Voice/Data
Switch Technology: Digital
Switching Matrix: Time Division

Modulation Method: PCM
Maximum Trunks Supported: 80
Maximum Stations Supported: 128
Attendant Consoles (Maximum): 2
Matrix Architecture: Nonblocking, 100%
Maximum Simultaneous Transmissions: 128
Advanced Features: User Programmable, Digitone at Handset (End-to-End Digital), Voice Store and Forward, OA, Diagnostics, Data Security
Advanced Attendant Features: Voice Synthesis, Station to Station, Facsimile
Distribution Method: Third-party
Number Installed to Date: More than 100
Date First Installed: February 1983
(See Vendor Profile Page V-17)

MATSU AMERICA, INC.
OMEGA III MODEL 412
Equipment Type: Key System
Transmission: Voice, Data
Switch Technology: Analog/Digital
Switching Matrix: Space Divsion
Modulation Method: PAM
Maximum Trunks Supported: 4
Maximum Stations Supported: 12
Attendant Consoles (Maximum): 1
Matrix Architecture: Nonblocking, 100%
Maximum Simultaneous Transmissions: 4
Advanced Features: User Programmable, LAN Capability (Micro/Mini)
Advanced Attendant Features: Message Connect/Override
Distribution Method: Third-party
Number Installed to Date: More than 100
Date First Installed: 1979

MATSU AMERICA, INC.
OMEGA III MODEL 616
Equipment Type: Key System
Transmission: Voice, Data
Switch Technology: Analog/Digital
Switching Matrix: Space Divsion
Modulation Method: PAM
Maximum Trunks Supported: 8
Maximum Stations Supported: 16
Attendant Consoles (Maximum): 1
Matrix Architecture: Nonblocking, 100%
Maximum Simultaneous Transmissions: 8
Advanced Features: LAN Capability (Micro/Mini)
Advanced Attendant Features: Message Connect/Override
Distribution Method: Third-party
Number Installed to Date: More than 100
Date First Installed: 1979

MATSU AMERICA, INC.
OMEGA IV ES-504/1648
Equipment Type: Hybrid
Transmission: Integrated Voice/Data
Switch Technology: Analog
Switching Matrix: Space Divsion
Maximum Trunks Supported: 16
Maximum Stations Supported: 48
Attendant Consoles (Maximum): 2
Matrix Architecture: Nonblocking, 100%
Maximum Simultaneous Transmissions: 24
Advanced Features: User Programmable, Voice Store and Forward, OA, Diagnostics
Advanced Attendant Features: Voice Synthesis, Hand-Free Reply
Distribution Method: Third-party
Date First Installed: January 1984

MATSU AMERICA, INC.
OMEGA III MODEL 2408
Equipment Type: Key System
Transmission: Voice, Data
Switch Technology: Analog/Digital
Switching Matrix: Space Divsion
Modulation Method: PAM
Maximum Trunks Supported: 20
Maximum Stations Supported: 80
Attendant Consoles (Maximum): 2
Matrix Architecture: Nonblocking, 100%
Maximum Simultaneous Transmissions: 20
Advanced Features: LAN Capability (Micro/Mini)
Advanced Attendant Features: Call-Waiting, Message Connect/Override
Distribution Method: Third-party
Number Installed to Date: More than 100
Date First Installed: 1979

MI/A-COM, INC.
IDX 3000
Equipment Type: CBX
Transmission: Data
Switch Technology: Digital
Switching Matrix: Time Division
Modulation Method: Bipolar
Maximum Trunks Supported: 128
Maximum Stations Supported: 3,072
Matrix Architecture: Nonblocking, 100%
Maximum Simultaneous Transmissions: 3,072.
Maximum Transmission Speeds: Data: 19,200 bit/sec
Advanced Features: User Programmable, Digitone at Handset (End-to-End Digital), T-1 Carrier Interface, LAN Capability (Micro/Mini/Mainframe), Security, Diagnostics, Data Security, Energy Control/Management, RJE to Host Interface, Protocol Conversion
Advanced Attendant Features: Optional, Autoband Terminals, On-Line Reconfiguration
Price:
Purchase: $300
Distribution Method: OEM, Third-party
Number Installed to Date: 25 to 50
Date First Installed: October 1982
(See Vendor Profile Page V-18)

MILGO LABS, INC.
MAX-128P
Equipment Type: PBX
Transmission: Nonintegrated Voice/Data
Switch Technology: Analog
Switching Matrix: Space Divsion
Maximum Trunks Supported: 40
Maximum Stations Supported: 128
Attendant Consoles (Maximum): 2
Matrix Architecture: Nonblocking
Maximum Simultaneous Transmissions: 48
Maximum Transmission Speeds: Data: 4,800 bit/sec
Advanced Features: User Programmable, Security, Diagnostics
Price:
Purchase: $128
Distribution Method: Third-party
(See Vendor Profile Page V-19)

MILGO LABS, INC.
MAX-612
Equipment Type: PBX
Transmission: Nonintegrated Voice/Data
Switch Technology: Analog
Switching Matrix: Space Divsion
Maximum Trunks Supported: 2
Maximum Stations Supported: 12
Matrix Architecture: Nonblocking
Maximum Simultaneous Transmissions: 3
Maximum Transmission Speeds: Data: 4,800 bit/sec
Advanced Features: User - Programmable
Price:
Purchase: $75
Distribution Method: Third-party
Number Installed to Date: More than 100
Date First Installed: September 1982

MILGO LABS, INC.
MAX-624
Equipment Type: PBX
Transmission: Nonintegrated Voice/Data
Switch Technology: Analog
Switching Matrix: Space Divsion
Maximum Trunks Supported: 4
Maximum Stations Supported: 24
Attendant Consoles (Maximum): 1
Matrix Architecture: Nonblocking
Maximum Simultaneous Transmissions: 6
Maximum Transmission Speeds: Data: 4,800 bit/sec
Advanced Features: User Programmable, Diagnostics
Price:
Purchase: $120
Distribution Method: Third-party
Number Installed to Date: More than 100
Date First Installed: July 1980

MILGO LABS, INC.
MAX-624
Equipment Type: PBX
Transmission: Nonintegrated Voice/Data
Switch Technology: Analog
Switching Matrix: Space Divsion
Maximum Trunks Supported: 12
Maximum Stations Supported: 24
Attendant Consoles (Maximum): 1
Matrix Architecture: Nonblocking
Maximum Simultaneous Transmissions: 16
Maximum Transmission Speeds: Data: 4,800 bit/sec
Advanced Features: User Programmable, Diagnostics
Price:
Purchase: $140
Distribution Method: Third-party
Number Installed to Date: More than 100
Date First Installed: 1981

MICRO SYSTEMS, INC.
MICRO 600
Equipment Type: Data Switch
Transmission: Data
Switch Technology: Digital
Switching Matrix: Time Division
Maximum Stations Supported: 1,024
Matrix Architecture: Blocking
Maximum Simultaneous Transmissions: 400
Maximum Transmission Speeds: Data: 9,600 bit/sec
Advanced Features: T-1 Carrier Interface, X.25 Interface, LAN Capability (Micro/Mini/Mainframe), OA, Security, Diagnostics, Data Security, Protocol Conversion
Price:
Purchase: $100 to $250
Distribution Method: End user
Number Installed to Date: More than 100
Date First Installed: November 1979
(See Vendor Profile Page V-19)

MITEL, INC.
SX-5
Equipment Type: PABX
Transmission: Integrated Voice/Data
Switch Technology: Digital
Switching Matrix: Space Divsion
Modulation Method: PAM
Maximum Trunks Supported: 2
Maximum Stations Supported: 6
Matrix Architecture: Blocking
Advanced Features: User Programmable, Diagnostics, Data Security, Protocol Conversion, Ring Group
(See Vendor Profile Page V-20)

MITEL, INC.
SX-10
Equipment Type: PABX
Transmission: Integrated Voice/Data
Switch Technology: Digital
Switching Matrix: Space Divsion
Modulation Method: PAM
Maximum Trunks Supported: 8
Maximum Stations Supported: 16
Attendant Consoles (Maximum): 1
Matrix Architecture: Blocking
Maximum Simultaneous Transmissions: 8
Advanced Features: User Programmable, OA, Security, Diagnostics, Data Security, Protocol Conversion, External Call Forwarding
Price:
Purchase: $3,000
Distribution Method: Third-party
Date First Installed: 1981

MITEL, INC.
SX-50
Equipment Type: PABX
Transmission: Integrated Voice/Data
Switch Technology: Analog

Switching Equipment

Switching Matrix: Space Division
Modulation Method: PAM
Maximum Trunks Supported: 12
Maximum Stations Supported: 72
Attendant Consoles (Maximum): 2
Matrix Architecture: Blocking
Advanced Features: User Programmable, OA, Security, Diagnostics, Data Security, Protocol Conversion, External Call Forwarding
Price:
Purchase: $8,300
Distribution Method: Third-party
Date First Installed: January 1980

SITEL, INC.
SX-100
Equipment Type: PABX
Transmission: Voice
Switch Technology: Analog
Switching Matrix: Space Division
Maximum Trunks Supported: 112
Maximum Stations Supported: 112
Attendant Consoles (Maximum): 2
Matrix Architecture: Blocking
Maximum Simultaneous Transmissions: 31
Maximum Transmission Speeds:
Data: 4,800 bit/sec
Advanced Features: User Programmable, Security, Diagnostics, Data Security
Distribution Method: Third-party
Number Installed to Date: 5,000
Date First Installed: 1979

SITEL, INC.
SX-300
Equipment Type: PABX
Transmission: Voice
Switch Technology: Analog
Switching Matrix: Space Division
Maximum Trunks Supported: 208
Maximum Stations Supported: 208
Attendant Consoles (Maximum): 2
Matrix Architecture: Blocking
Maximum Simultaneous Transmissions: 31
Maximum Transmission Speeds:
Data: 4,800 bit/sec
Advanced Features: User Programmable, Security, Diagnostics, Data Security
Distribution Method: Third-party
Number Installed to Date: 5,000
Date First Installed: September 1978

SORDAN DATA SYSTEMS
ANSWERNET
Equipment Type: PCM Switch
Transmission: Nonintegrated Voice/Data
Switch Technology: Digital
Switching Matrix: Time Division, Space Division
Modulation Method: PCM
Maximum Trunks Supported: 250
Maximum Stations Supported: 20
Attendant Consoles (Maximum): 30
Maximum Simultaneous Transmissions: 24
Maximum Transmission Speeds:
Voice: 1,536,000 bit/sec
Advanced Features: User Programmable, Digitizes at Handset (End-to-End Digital), LAN Capability (Micro/Mini), Voice Store and Forward, OA, Diagnostics
Advanced Attendant Features: Call Distribution
Price:
Purchase: $275
Distribution Method: End user, Third-party
Number Installed to Date: 1 to 10
Date First Installed: August 1983
(See Vendor Profile Page V-20)

MOTOROLA, INC.
EMX SERIES SWITCHING EXCHANGES
Equipment Type: Cellular Telephone Switch
Transmission: Voice, Nonintegrated Voice/Data
Switch Technology: Digital
Switching Matrix: Time Division
Modulation Method: PCM
Matrix Architecture: Nonblocking
Advanced Features: T-1 Carrier Interface, Voice Store and Forward, Security, Diagnostics
Distribution Method: End user
Number Installed to Date: 10 to 25
Date First Installed: September 1980
(See Vendor Profile Page V-20)

MOTOROLA, INC.
EMX SERIES (RADIO TELEPHONE)
Equipment Type: PCM
Transmission: Integrated Voice/Data
Switch Technology: Digital
Switching Matrix: Time Division
Modulation Method: PCM
Maximum Trunks Supported: 15,000
Maximum Stations Supported: 200,000
Matrix Architecture: Nonblocking
Maximum Simultaneous Transmissions: 7,500
Advanced Features: User Programmable, T-1 Carrier Interface, Diagnostics, Digital Radio Telephone Extension
Distribution Method: End user
Number Installed to Date: 25 to 50

NETWORK PRODUCTS, INC.
BABYNET
Equipment Type: Data Switch
Transmission: Data
Switch Technology: Digital
Switching Matrix: Packet
Maximum Trunks Supported: 1
Maximum Stations Supported: 86
Attendant Consoles (Maximum): 64
Matrix Architecture: Nonblocking
Maximum Simultaneous Transmissions: 22
Maximum Transmission Speeds:
Data: 9,600 bit/sec
Advanced Features: User Programmable, X.25 Interface, LAN Capability (Micro/Mini/Mainframe), OA, Security, Diagnostics, Data Security, RJE to Host Interface, Protocol Conversion
Price:
Purchase: $1,450
Distribution Method: End user
Number Installed to Date: More than 100
Date First Installed: 1982
(See Vendor Profile Page V-21)

NORTHERN TELECOM, INC.
CBX 340
Equipment Type: PABX
Transmission: Digital
Switch Technology: Analog/Digital
Switching Matrix: Time Division
Matrix Architecture: Nonblocking, 100%
Maximum Simultaneous Transmissions: 1
Maximum Transmission Speeds:
Data: 56,000 bit/sec
Advanced Features: X.25 Interface, OA, Security, Diagnostics, Data Security, RJE to Host Interface, Protocol Conversion
Distribution Method: End user
Number Installed to Date: More than 100
Date First Installed: 1973
(See Vendor Profile Page V-22)

NORTHERN TELECOM, INC.
DMS 10
Equipment Type: C.O. Switch
Transmission: Integrated Voice/Data
Switch Technology: Digital
Switching Matrix: Time Division, Space Division
Modulation Method: PCM
Maximum Trunks Supported: 1,120
Maximum Stations Supported: 10,000
Matrix Architecture: Nonblocking, 100%
Maximum Simultaneous Transmissions: 3,360
Maximum Transmission Speeds:
Voice: 64,000 bit/sec
Data: 56,000 bit/sec
Advanced Features: T-1 Carrier Interface, X.25 Interface, Security, Diagnostics, RJE to Host Interface, Protocol Conversion
Price:
Purchase: $250 to $600
Distribution Method: End user
Number Installed to Date: 1,000
Date First Installed: September 1977

NORTHERN TELECOM, INC.
DMS 100
Equipment Type: C.O. Switch
Transmission: Integrated Voice/Data
Switch Technology: Digital
Switching Matrix: Time Division
Modulation Method: PCM
Maximum Trunks Supported: 60,000
Maximum Stations Supported: 100,000
Matrix Architecture: Nonblocking, 100%
Maximum Simultaneous Transmissions: 61,440
Maximum Transmission Speeds:
Voice: 64,000 bit/sec
Data: 64,000 bit/sec
Advanced Features: T-1 Carrier Interface, X.25 Interface, Voice Store and Forward, Security, Diagnostics, RJE to Host Interface, Protocol Conversion
Price:
Purchase: $300 to $500
Distribution Method: End user
Number Installed to Date: 600
Date First Installed: December 1978

NORTHERN TELECOM, INC.
DMS 200
Equipment Type: Toll Tandem Switch
Transmission: Integrated Voice/Data
Switch Technology: Digital
Switching Matrix: Time Division
Modulation Method: PCM
Maximum Trunks Supported: 60,000
Matrix Architecture: Nonblocking, 100%
Maximum Simultaneous Transmissions: 30,000
Maximum Transmission Speeds:
Voice: 64,000 bit/sec
Data: 64,000 bit/sec
Advanced Features: T-1 Carrier Interface, X.25 Interface, Security, Diagnostics, Data Security, Protocol Conversion
Distribution Method: End user
Number Installed to Date: More than 100
Date First Installed: April 1979

NORTHERN TELECOM, INC.
SL-1
Equipment Type: PABX
Transmission: Integrated Voice/Data
Switch Technology: Digital
Switching Matrix: Time Division
Modulation Method: PCM
Maximum Trunks Supported: 500
Maximum Stations Supported: 5,000
Attendant Consoles (Maximum): 16
Matrix Architecture: Blocking
Maximum Simultaneous Transmissions: 1,000
Maximum Transmission Speeds:
Data: 56,000 bit/sec
Advanced Features: Voice Store and Forward, OA, Diagnostics, Data Security, RJE to Host Interface, Protocol Conversion
Price:
Purchase: $1,000 to $2,000
Distribution Method: End user, Third-party
Number Installed to Date: 6,000
Date First Installed: 1976

NORTHERN TELECOM, INC.
SL-100
Equipment Type: PABX
Transmission: Integrated Voice/Data
Switch Technology: Digital
Switching Matrix: Time Division
Modulation Method: PCM
Maximum Trunks Supported: 5,000
Maximum Stations Supported: 30,000
Attendant Consoles (Maximum): 255
Matrix Architecture: Nonblocking
Maximum Transmission Speeds:
Data: 64,000 bit/sec
Advanced Features: User Programmable, Digitizes at Handset (End-to-End Digital), Voice Store and Forward, OA, Security, Diagnostics, Data Security, RJE to Host Interface,

Protocol Conversion
Distribution Method: End user, Third-party
Number Installed to Date: 13
Date First Installed: 1979

OKI ELECTRONICS OF AMERICA, INC.
SPECTRUM 100
Equipment Type: PABX Hybrid Key
Transmission: Integrated Voice/Data
Switch Technology: Digital
Switching Matrix: Time Division, PCM
Modulation Method: PCM
Maximum Trunks Supported: 48
Maximum Stations Supported: 256
Attendant Consoles (Maximum): 2
Matrix Architecture: Nonblocking
Maximum Simultaneous Transmissions: 256
Maximum Transmission Speeds:
Voice: 8,000 bit/sec
Advanced Features: User Programmable, Digitizes at Handset (End-to-End Digital), LAN Capability (Micro/Mini), OA, Diagnostics, Data Security, Protocol Conversion
Advanced Attendant Features: Voice Digital Station, 16 Programmable Function Line Keys, DDS, BLF Line Appearance
Distribution Method: Third-party
Number Installed to Date: 50 to 100
Date First Installed: January 1983
(See Vendor Profile Page V-22)

OKI ELECTRONICS OF AMERICA, INC.
SPECTRUM 700
Equipment Type: PABX
Transmission: Integrated Voice/Data
Switch Technology: Digital
Switching Matrix: Time Division
Modulation Method: PCM
Maximum Trunks Supported: 176
Maximum Stations Supported: 700
Attendant Consoles (Maximum): 8
Matrix Architecture: Nonblocking
Maximum Simultaneous Transmissions: 256
Maximum Transmission Speeds:
Voice: 8,000 bit/sec
Data: 192,000 bit/sec
Advanced Features: User Programmable, T-1 Carrier Interface, Voice Store and Forward, OA, Diagnostics
Distribution Method: Third-party
Number Installed to Date: 50 to 100
Date First Installed: January 1983

OKI ELECTRONICS OF AMERICA, INC.
SPECTRUM 4000
Equipment Type: PABX
Transmission: Integrated Voice/Data
Switch Technology: Digital
Switching Matrix: Time Division
Modulation Method: PCM
Maximum Trunks Supported: 960
Maximum Stations Supported: 4,000
Attendant Consoles (Maximum): 24
Matrix Architecture: Blocking
Maximum Simultaneous Transmissions: 960
Maximum Transmission Speeds:
Voice: 8,000 bit/sec
Data: 16,200 bit/sec
Advanced Features: User Programmable, T-1 Carrier Interface, Voice Store and Forward, OA, Diagnostics
Distribution Method: Third-party

PARADYNE CORP.
PDN 8000
Equipment Type: Packet Processor
Transmission: Data
Switch Technology: Digital
Switching Matrix: Packet
Maximum Trunks Supported: 16
Maximum Stations Supported: 10,000
Attendant Consoles (Maximum): 14
Matrix Architecture: Nonblocking
Maximum Simultaneous Transmissions: 13,000
Maximum Transmission Speeds:
Data: 72,000 bit/sec
Advanced Features: User Programmable, X.25 Interface, LAN Capability (Micro/Mini/Mainframe), OA, Security, Diagnostics, Data Security, RJE to Host Interface, Protocol Conversion
Prices:
Purchase: $800 to $2,000
Distribution Method: End user
Number Installed to Date: More than 100
Date First Installed: January 1982
(See Vendor Profile Page V-23)

PERIPHONICS CORP.
T-COMM
Equipment Type: PBX
Transmission: Integrated Voice/Data
Switch Technology: Analog/Digital
Switching Matrix: Space Division
Modulation Method: FM
Maximum Simultaneous Transmissions: 416
Advanced Features: User Programmable, T-1 Carrier Interface, LAN Capability (Micro/Mini/Mainframe), Security, Diagnostics, Data Security, Energy Control/Management, RJE to Host Interface, Protocol Conversion
Distribution Method: End user
Number Installed to Date: More than 100
Date First Installed: January 1973
(See Vendor Profile Page V-23)

PHILIPS ELECTRONICS INSTRUMENTS, INC.
FLEXPAC
Equipment Type: Data Switch
Transmission: Data
Switch Technology: Digital
Maximum Trunks Supported: 15
Maximum Simultaneous Transmissions: 70
Advanced Features: User Programmable, X.25 Interface, Security, Diagnostics
Advanced Attendant Features: X.25 Monitoring
Advanced Station Features: Software Downline Loading, Billing
Distribution Method: End user, Third-party
Number Installed to Date: More than 100
(See Vendor Profile Page V-23)

PROLINX CORP.
PROLINX
Equipment Type: PBX
Transmission: Integrated Voice/Data
Switch Technology: Analog/Digital
Switching Matrix: Space Division
Modulation Method: PCM
Maximum Trunks Supported: 40
Maximum Stations Supported: 128
Attendant Consoles (Maximum): 8
Matrix Architecture: Blocking
Maximum Transmission Speeds:
Voice: 1,000,000 bit/sec
Data: 1,080,800 bit/sec
Advanced Features: User Programmable, T-1 Carrier Interface, LAN Capability (Micro/Mini/Mainframe), OA, Diagnostics, Data Security, Protocol Conversion
Advanced Attendant Features: Busy Lamp Field, Internal Directory
Advanced Station Features: Personal Speed Code No., Call-Waiting Voice Button, Speaker
Prices:
Purchase: $800 to $900
Distribution Method: OEM
Number Installed to Date: 25 to 50
Date First Installed: 1982
(See Vendor Profile Page V-24)

ROCKWELL INTERNATIONAL CORP.
GALAXY ACD
Equipment Type: ACD
Transmission: Integrated Voice/Data
Switch Technology: Digital
Switching Matrix: Time/Space/Time
Modulation Method: PCM
Maximum Trunks Supported: 1,536
Maximum Stations Supported: 1,536
Attendant Consoles (Maximum): 512
Matrix Architecture: Nonblocking: 100%
Maximum Simultaneous Transmissions: 768
Maximum Transmission Speeds:
Voice: 8,000 bit/sec
Data: 9,600 bit/sec
Advanced Features: T-1 Carrier Interface, X.25 Interface, OA, Diagnostics, Protocol Conversion
Distribution Method: End user
Number Installed to Date: More than 100
Date First Installed: April 1974
(See Vendor Profile Page V-25)

ROLM CORP.
CBX II (8000 CPU)
Equipment Type: CBX
Transmission: Integrated Voice/Data
Switch Technology: Digital
Switching Matrix: Time Division
Modulation Method: PCM
Maximum Trunks Supported: 4,000
Maximum Stations Supported: 10,000
Attendant Consoles (Maximum): 8
Matrix Architecture: Nonblocking
Maximum Simultaneous Transmissions: 11,520
Maximum Transmission Speeds:
Voice: 64,000 bit/sec
Data: 64,000 bit/sec
Advanced Features: User Programmable, Digitizes at Handset (End-to-End Digital), T-1 Carrier Interface, X.25 Interface, LAN Capability (Micro/Mini/Mainframe), Voice Store and Forward, OA, Security, Diagnostics, Data Security, RJE to Host Interface, Protocol Conversion
Advanced Attendant Features: Attendant Directory, Telephone Message, Management System, IBM
Distribution Method: End user, Third-party
Number Installed to Date: More than 100
Date First Installed: October 1983
(See Vendor Profile Page V-26)

ROLM CORP.
CBX II (8000 CPU)
Equipment Type: CBX
Transmission: Integrated Voice/Data
Switch Technology: Digital
Switching Matrix: Time Division
Modulation Method: PCM
Maximum Trunks Supported: 4,000
Maximum Stations Supported: 10,000
Matrix Architecture: Nonblocking
Maximum Simultaneous Transmissions: 11,520
Maximum Transmission Speeds:
Voice: 64,000 bit/sec
Data: 64,000 bit/sec
Advanced Features: User Programmable, Digitizes at Handset (End-to-End Digital), T-1 Carrier Interface, X.25 Interface, LAN Capability (Micro/Mini/Mainframe), Voice Store and Forward, OA, Security, Diagnostics, Data Security, RJE to Host Interface, Protocol Conversion
Advanced Attendant Features: Attendant Directory, Telephone Message Management System
Distribution Method: End user, Third-party
Number Installed to Date: More than 100
Date First Installed: October 1983

ROLM CORP.
VSCBX
Equipment Type: CBX
Transmission: Integrated Voice/Data
Switch Technology: Digital
Switching Matrix: Time Division
Modulation Method: PCM
Maximum Trunks Supported: 48
Maximum Stations Supported: 144
Attendant Consoles (Maximum): 2
Maximum Simultaneous Transmissions: 67
Maximum Transmission Speeds:
Voice: 64,000 bit/sec
Data: 64,000 bit/sec
Advanced Features: User Programmable, Digitizes at Handset (End-to-End Digital), T-1 Carrier

Interface, X.25 Interface, LAN Capability (Micro/Mini/Mainframe), Voice Store and Forward, OA, Security, Diagnostics, Data Security, RJE to Host Interface, Protocol Conversion
Advanced Attendant Features: Attendant Directory, Telephone Message Management System
Advanced Station Features: Data Sheet Listing
Distribution Method: End user
Number Installed to Date: More than 100
Date First Installed: September 1979

SIEMENS COMMUNICATIONS SYSTEMS
SATURN II
Equipment Type: PABX
Transmission: Integrated Voice/Data
Switch Technology: Digital
Switching Matrix: Time Division
Modulation Method: PCM
Maximum Trunks Supported: 72
Maximum Stations Supported: 224
Attendant Consoles (Maximum): 4
Matrix Architecture: Nonblocking, 100%
Maximum Simultaneous Transmissions: 224
Advanced Features: User Programmable, Digitize at Handset (End-to-End Digital), OA, Diagnostics, Message Waiting Privacy
Advanced Station Features: Hold, Transfer, Conference Call, Queuing, Call Pick-up, Speed Calling, Station Hunting
Distribution Method: OEM, Third-party
Number Installed to Date: More than 100
Date First Installed: September 1982
(See Vendor Profile Page V-39)

SIEMENS COMMUNICATIONS SYSTEMS
SATURN III
Equipment Type: PABX
Transmission: Integrated Voice/Data
Switching Matrix: Time Division
Modulation Method: PCM
Maximum Trunks Supported: 224
Maximum Stations Supported: 864
Attendant Consoles (Maximum): 8
Matrix Architecture: Nonblocking, 100%
Maximum Simultaneous Transmissions: 864
Advanced Features: User Programmable, Digitize at Handset (End-to-End Digital), OA, Diagnostics, Message Waiting Privacy
Advanced Station Features: Hold, Transfer, Conference Call, Queuing, Call Pick-up, Speed Calling, Station Hunting
Distribution Method: OEM, Third-party
Number Installed to Date: More than 100
Date First Installed: 1983

SIEMENS COMMUNICATIONS SYSTEMS
SD-192
Equipment Type: PABX
Transmission: Voice
Switch Technology: Analog
Switching Matrix: Space Division
Modulation Method: Analog AD
Maximum Trunks Supported: 48
Maximum Stations Supported: 192
Attendant Consoles (Maximum): 2
Matrix Architecture: Full Availability
Maximum Simultaneous Transmissions: 48
Maximum Transmission Speeds: Data: 4,800 bit/sec
Advanced Features: User Programmable, Diagnostics, Data Security
Number Installed to Date: 9,000
Date First Installed: September 1976

SIEMENS COMMUNICATIONS SYSTEMS
SD-192MX
Equipment Type: PABX
Transmission: Voice
Switch Technology: Analog
Switching Matrix: Space Division
Maximum Trunks Supported: 48
Maximum Stations Supported: 192
Attendant Consoles (Maximum): 2
Matrix Architecture: Full Availability
Maximum Simultaneous Transmissions: 48
Maximum Transmission Speeds: Data: 4,800 bit/sec
Advanced Features: User Programmable, Diagnostics, Data Security
Advanced Attendant Features: Call Parking, Trunk-to-Trunk Station Callback
Distribution Method: Third-party
Number Installed to Date: 8,000
Date First Installed: June 1980

SOLID STATE SYSTEMS, INC.
CBX
Equipment Type: CBX
Transmission: Nonintegrated Voice/Data
Switch Technology: Analog
Switching Matrix: Space Division
Maximum Trunks Supported: 384
Maximum Stations Supported: 1,792
Attendant Consoles (Maximum): 16
Matrix Architecture: Nonblocking, 90%
Maximum Simultaneous Transmissions: 512
Maximum Transmission Speeds: Voice: 9,600 bit/sec Data: 9,600 bit/sec
Advanced Features: User Programmable, T-1 Carrier Interface, LAN Capability (Micro/Mini/Mainframe), OA, Security, Diagnostics, Data Security, Energy Control/Management, RJE to Host Interface, Protocol Conversion
Price: Purchase: $300 to $750
Distribution Method: Third-party
Number Installed to Date: 25 to 50
Date First Installed: June 1981
(See Vendor Profile Page V-28)

SYSCON, INC.
STORE & FORWARD MESSAGE SWITCH
Equipment Type: Data Switch
Transmission: Data
Switch Technology: Digital
Maximum Trunks Supported: 32
Maximum Simultaneous Transmissions: 32
Maximum Transmission Speeds: Data: 9,600 bit/sec
Advanced Features: User Programmable, LAN Capability (Mainframe), Security, Diagnostics, Data Security
Average Monthly Maintenance: $1
Distribution Method: End user
Number Installed to Date: 25 to 50
Date First Installed: 1980
(See Vendor Profile Page V-29)

T-BAR, INC.
3666/3668 SERIES COMPUTER SWITCH MATRIX
Equipment Type: Data Switch
Transmission: Data
Switch Technology: Analog
Switching Matrix: Space Division
Attendant Consoles (Maximum): 2
Matrix Architecture: Nonblocking, 100%
Maximum Transmission Speeds: Data: 9,000,000 bit/sec
Advanced Features: User Programmable, Security, Diagnostics
Advanced Attendant Features: Real-Time Configuration, Display User Data Base Switching
Advanced Attendant Features: Channel Interface, Diagnostic Module, Connectivity, Insensitivity to Power Loss
Price: Purchase: $800 to $1,100
Distribution Method: End user
Number Installed to Date: 1,700
Date First Installed: February 1975
(See Vendor Profile Page V-29)

T-BAR, INC.
3600 SERIES
Equipment Type: Data Switch
Transmission: Voice, Data, Nonintegrated Voice/Data, Integrated Voice/Data
Switch Technology: Analog
Switching Matrix: Space Division
Maximum Trunks Supported: 96
Attendant Consoles (Maximum): 1
Matrix Architecture: Nonblocking, 100%
Maximum Simultaneous Transmissions: 96
Maximum Transmission Speeds: Voice: 64,000 bit/sec Data: 2,040,000 bit/sec
Advanced Features: T-1 Carrier Interface, X.25 Interface, LAN Capability (Micro/Mini/Mainframe), Security, Diagnostics
Advanced Attendant Features: Individual Line and Bulk Line Switch
Advanced Station Features: Speed and Protocols, Transparency, Insensitivity to Power Loss
Price: Purchase: $100 to $150
Distribution Method: End user, OEM, Third-party
Number Installed to Date: 100,000
Date First Installed: 1972

T-BAR, INC.
3660 SERIES PATCH
Equipment Type: Analog Switch
Transmission: Voice, Data, Nonintegrated Voice/Data, Integrated Voice/Data
Switch Technology: Analog
Switching Matrix: Space Division
Maximum Trunks Supported: 96
Attendant Consoles (Maximum): 1
Matrix Architecture: Nonblocking, 100%
Maximum Simultaneous Transmissions: 96
Maximum Transmission Speeds: Voice: 64,000 bit/sec Data: 2,040,000 bit/sec
Advanced Features: T-1 Carrier Interface, X.25 Interface, Diagnostics
Advanced Attendant Features: Circuit Reconfiguration, Modem Subset and Sparing, Monitor and Break
Advanced Station Features: Line Activity Display, Connectivity, Insensitivity to Power Loss
Price: Purchase: $85 to $150
Distribution Method: End user, OEM, Third-party
Number Installed to Date: 100,000

T-BAR, INC.
MAS8
Equipment Type: Data Switch
Transmission: Voice, Data, Nonintegrated Voice/Data, Integrated Voice/Data
Switch Technology: Analog
Switching Matrix: Direct
Maximum Trunks Supported: 8,192
Attendant Consoles (Maximum): 8
Matrix Architecture: Nonblocking, 100%
Maximum Simultaneous Transmissions: 8,192
Maximum Transmission Speeds: Data: 2,040,000 bit/sec
Advanced Features: User Programmable, T-1 Carrier Interface, X.25 Interface, Security, Diagnostics
Advanced Attendant Features: Central Distribution, Control Preprogrammed Configuration, Automatic Alarms
Advanced Station Features: Transparency to Protocol and Data Rate
Price: Purchase: $350 to $500
Distribution Method: End user, OEM
Number Installed to Date: More than 100
Date First Installed: March 1980

T-BAR, INC.
VIRTUAL SWITCH MATRIX
Equipment Type: Data Switch
Transmission: Data
Switch Technology: Digital
Switching Matrix: Space Division
Maximum Trunks Supported: 4,096
Matrix Architecture: Nonblocking, 100%
Maximum Simultaneous Transmissions: 4,096

Maximum Transmission Speeds:
Data: 230,000 bit/sec
Advanced Features: User Programmable, Security, Diagnostics, RJE to Host Interface, Protocol Transparency
Advanced Attendant Features: Central Distribution, Control Preprogrammed Configuration, Automatic Alarms, Network Management, Data Base
Price:
Purchase: $585
Distribution Method: End user, OEM
Number Installed to Date: More than 100
Date First Installed: January 1982

TECHTRAN INDUSTRIES, INC.
MC 86 86T
Equipment Type: IBX
Transmission: Integrated Voice/Data
Switch Technology: Analog
Matrix Architecture: Nonblocking, 100%
Maximum Transmission Speeds:
Data: 5,000,000 bit/sec
Advanced Features: User Programmable
Distribution Method: End user
Date First Installed: September 1982
(See Vendor Profile Page V-29)

TEKNEKRON INFO SWITCH
INFO SWITCH ACD
Equipment Type: ACD
Transmission: Nonintegrated Voice/Data
Switch Technology: Analog
Switching Matrix: Space Division
Maximum Trunks Supported: 800
Maximum Stations Supported: 700
Matrix Architecture: Nonblocking, 100%
Maximum Simultaneous Transmissions: 660
Maximum Transmission Speeds:
Voice: 9,600 bit/sec
Advanced Features: User Programmable, X.25 Interface, LAN Capability (Micro/Mini/Mainframe), OA, Diagnostics
Distribution Method: End user
Number Installed to Date: More than 100
(See Vendor Profile Page V-30)

TELECOM TECHNOLOGIES
ECD 1600
Equipment Type: ACD
Transmission: Voice
Switch Technology: Analog
Switching Matrix: Space Division
Maximum Trunks Supported: 20
Maximum Stations Supported: 20
Matrix Architecture: Nonblocking, 100%
Maximum Simultaneous Transmissions: 20
Advanced Features: User Programmable, RJE to Host Interface, 8 Agent Groups
Distribution Method: Third-party
Number Installed to Date: 10 to 25
Date First Installed: September 1983
(See Vendor Profile Page V-30)

TELECOM TECHNOLOGIES
ECD 2600
Equipment Type: ACD
Transmission: Voice
Switch Technology: Analog
Switching Matrix: Space Division
Maximum Trunks Supported: 48
Maximum Stations Supported: 48
Matrix Architecture: Nonblocking, 100%
Maximum Simultaneous Transmissions: 48
Advanced Features: User Programmable, Diagnostics, RJE to Host Interface
Distribution Method: Third-party
Number Installed to Date: More than 100
Date First Installed: November 1982

TELE/RESOURCES
T R 100 SERIES
Equipment Type: PBX
Transmission: Voice, Data
Switch Technology: Analog
Switching Matrix: Time Division
Modulation Method: PAM
Maximum Trunks Supported: 64
Maximum Stations Supported: 256
Attendant Consoles (Maximum): 2
Matrix Architecture: Blocking
Maximum Simultaneous Transmissions: 64
Maximum Transmission Speeds:
Voice: 4,800 bit/sec
Data: 4,800 bit/sec
Advanced Features: User Programmable, Diagnostics, Data Security, Four-Wire Transmission
Price:
Purchase: $300
Distribution Method: Third-party
Number Installed to Date: More than 100
Date First Installed: 1979
(See Vendor Profile Page V-30)

TELLABS, INC.
331.3PLEXER
Equipment Type: Packet Processor
Transmission: Data
Switch Technology: Digital
Switching Matrix: STDM
Maximum Trunks Supported: 16
Maximum Stations Supported: 32
Maximum Transmission Speeds:
Data: 76,800 bit/sec
Advanced Features: Security, Diagnostics, Data Security, Speed and Parity Conversion
Advanced Attendant Features: Configuration Status, TICS Messages
Advanced Station Features: Autobaud, Echoplex, Host Select Message, Broadcast, Port Contention, Queuing Option
Price:
Purchase: $2,900 to $12,900
Distribution Method: End user, OEM, Third-party
Number Installed to Date: 25 to 50
Date First Installed: 1983
(See Vendor Profile Page V-30)

TERMINAL DATA CORP.
DATA SWITCH
Equipment Type: Data Switch
Transmission: Data
Switch Technology: Digital
Maximum Trunks Supported: 1
Maximum Stations Supported: 4
Attendant Consoles (Maximum): 1
Matrix Architecture: Blocking
Maximum Transmission Speeds:
Data: 19,200 bit/sec
Price:
Purchase: $129 to $300
Average Monthly Maintenance: $10
Distribution Method: End user
Number Installed to Date: More than 100
Date First Installed: May 1982
(See Vendor Profile Page V-30)

TIE COMMUNICATIONS, INC.
MERCURY PBX
Equipment Type: PABX
Transmission: Voice
Switch Technology: Digital
Switching Matrix: Time Division
Modulation Method: PCM
Maximum Trunks Supported: 480
Maximum Stations Supported: 1,920
Attendant Consoles (Maximum): 8
Matrix Architecture: Blocking
Maximum Simultaneous Transmissions: 255
Advanced Features: Diagnostics, Data Security
Price:
Purchase: $300 to $400
Distribution Method: Third-party
Number Installed to Date: 50 to 100
(See Vendor Profile Page V-31)

TOSHIBA AMERICA, INC.
PERCEPTION
Equipment Type: PABX
Transmission: Voice
Switch Technology: Digital
Switching Matrix: Time Division
Modulation Method: PCM
Maximum Trunks Supported: 32
Maximum Stations Supported: 120
Attendant Consoles (Maximum): 2
Matrix Architecture: Nonblocking, 100%
Maximum Simultaneous Transmissions: 120
Maximum Transmission Speeds:
Voice: 20,000 bit/sec
Advanced Features: User Programmable, LAN Capability (Micro/Mini/Mainframe), Diagnostics
Distribution Method: Third-party
Data First Installed: March 1983
(See Vendor Profile Page V-31)

UNITED TECHNOLOGIES/LEXAR CORP.
UTX 1001
Equipment Type: PBX
Transmission: Integrated Voice/Data
Switch Technology: Digital
Switching Matrix: Time Division
Modulation Method: ADM
Maximum Trunks Supported: 3,000
Maximum Stations Supported: 3,000
Attendant Consoles (Maximum): 16
Matrix Architecture: Nonblocking, 100%
Maximum Simultaneous Transmissions: 512
Maximum Transmission Speeds:
Voice: 56,000 bit/sec
Data: 64,000 bit/sec
Advanced Features: Digitize at Handset (End-to-End Digital), LAN Capability (Micro/Mini/Mainframe), Voice Store and Forward, OA, Diagnostics, Energy Control/Management, Protocol Conversion
Distribution Method: End user
Number Installed to Date: 50 to 100
Date First Installed: January 1981
(See Vendor Profile Page V-32)

UNITED TECHNOLOGIES/LEXAR CORP.
UTX 1200
Equipment Type: PBX
Transmission: Integrated Voice/Data
Switch Technology: Digital
Switching Matrix: Time Division
Modulation Method: PCM
Maximum Trunks Supported: 1,200
Maximum Stations Supported: 1,344
Attendant Consoles (Maximum): 12
Matrix Architecture: Nonblocking
Maximum Simultaneous Transmissions: 672
Maximum Transmission Speeds:
Voice: 64,000 bit/sec
Data: 9,600 bit/sec
Advanced Features: T-1 Carrier Interface, X.25 Interface, Security, Diagnostics, Data Security
Price:
Purchase: $650
Distribution Method: End user
Number Installed to Date: More than 100

UNITED TECHNOLOGIES/LEXAR CORP.
UTX 2000
Equipment Type: PBX
Transmission: Integrated Voice/Data
Switch Technology: Digital
Switching Matrix: Time Division
Modulation Method: PCM
Maximum Trunks Supported: 5,376
Maximum Stations Supported: 5,376
Attendant Consoles (Maximum): 48
Matrix Architecture: Nonblocking
Maximum Simultaneous Transmissions: 2,688
Maximum Transmission Speeds:
Voice: 64,000 bit/sec
Data: 9,600 bit/sec
Advanced Features: T-1 Carrier Interface, X.25 Interface, Security Access Control, Diagnostics, Data Security
Price:
Purchase: $650
Distribution Method: End user
Number Installed to Date: More than 100

UNISYSTEM DATACOM
UNISWITCH 1600
Equipment Type: Data Switch
Transmission: Data
Switch Technology: Digital

Switching Matrix: Physical Switch
Maximum Trunks Supported: 8
Maximum Stations Supported: 8
Matrix Architecture: Nonblocking, 100%
Maximum Simultaneous Transmissions: 4
Maximum Transmission Speeds:
Data: 19,200 bit/sec
Advanced Features: User Programmable, LAN Capability (Micro/Mini), OA, Security, Diagnostics, Data Security, RJE to Host Interface
Price:
Purchase: $875
Average Monthly Maintenance: $5
Distribution Method: Third-party
Number Installed to Date: 50 to 100
Date First Installed: September 1982
(See Vendor Profile Page V-33)

WESTERN TELEMATIC, INC.
ABS
Equipment Type: Data Switch
Transmission: Data
Switch Technology: Digital
Maximum Stations Supported: 2
Price:
Purchase: $82
Distribution Method: End user, OEM, Third-party
Number Installed to Date: More than 100
Date First Installed: 1982
(See Vendor Profile Page V-33)

WESTERN TELEMATIC, INC.
CAS 41
Equipment Type: Data Switch
Transmission: Data
Switch Technology: Digital
Maximum Stations Supported: 4
Distribution Method: End user, OEM, Third-party
Number Installed to Date: More than 100
Date First Installed: 1982

WESTERN TELEMATIC, INC.
CAS 164
Equipment Type: Data Switch
Transmission: Data
Switch Technology: Digital
Maximum Stations Supported: 64
Price:
Purchase: $795
Distribution Method: End user, OEM, Third-party
Number Installed to Date: More than 100
Date First Installed: 1982

WESTERN TELEMATIC, INC.
PSU 41
Equipment Type: Data Switch
Transmission: Data
Switch Technology: Digital
Maximum Stations Supported: 4
Price:
Purchase: $395
Distribution Method: End user, OEM, Third-party
Number Installed to Date: More than 100
Date First Installed: 1982

WESTERN TELEMATIC, INC.
TM 41
Equipment Type: Data Switch
Transmission: Data
Switch Technology: Digital
Maximum Stations Supported: 4
Price:
Purchase: $295
Distribution Method: End user, OEM, Third-party
Number Installed to Date: More than 100

XYPLEX, INC.
XYPLEX SYSTEM
Equipment Type: Packet Processor
Transmission: Data
Switch Technology: Digital
Switching Matrix: STDM
Modulation Method: PM
Maximum Stations Supported: 2,000
Matrix Architecture: Nonblocking, 100%
Maximum Simultaneous Transmissions: 2,000
Maximum Transmission Speeds:
Data: 6,600 bit/sec
Advanced Features: User Programmable, LAN Capability (Micro/Mini/Mainframe), OA, Security, Diagnostics, Protocol Conversion
Price:
Purchase: $350
Distribution Method: OEM, Third-party
Date First Installed: October 1982
(See Vendor Profile Page V-33)

ZYEL, INC.
PBX
Equipment Type: PABX
Transmission: Integrated Voice/Data
Switch Technology: Digital
Switching Matrix: Time Division
Modulation Method: PCM
Maximum Stations Supported: 30,000
Matrix Architecture: Nonblocking
Maximum Transmission Speeds:
Voice: 64,000 bit/sec
Data: 56,000 bit/sec
Advanced Features: User Programmable, Digitizes at Handset (End-to-End Digital), T-1 Carrier Interface, X.25 Interface, LAN Capability (Micro/Mini/Mainframe), Voice Store and Forward, OA; Security, Diagnostics, Data Security, RJE to Host Interface, Protocol Conversion, IEEE 802.5 Interface
Price:
Purchase: $800 to $1,000
Distribution Method: Third-party
Date First Installed: June 1984
(See Vendor Profile Page V-34)

Network Designers—Introducing the simplicity of a Remote Procedure Call ...ACCES XNS.

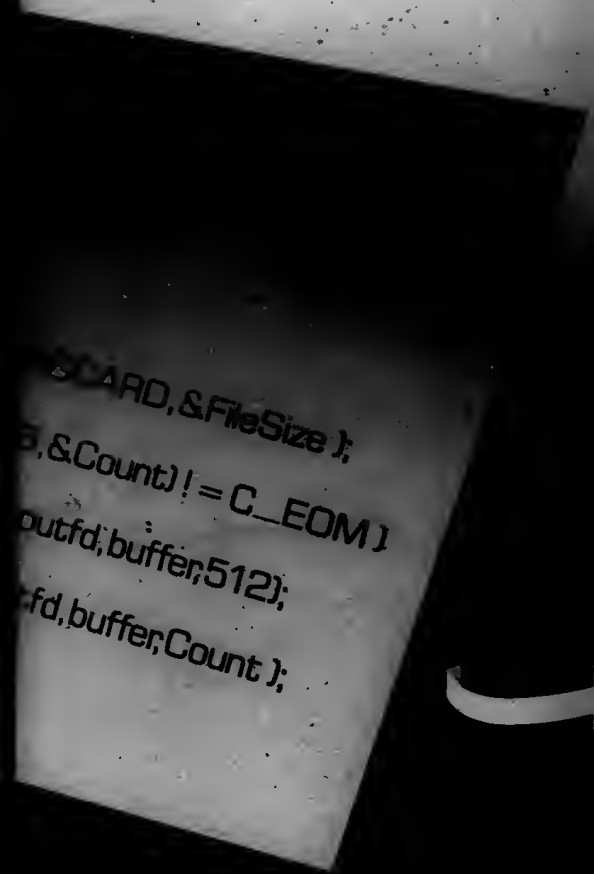
ACCES XNS is ACC's networking protocol package ready for use on popular minicomputers and work stations. It links applications and system level programs to data files and processing services in your distributed computer environment...through simple Remote Procedure Calls.

The ACCES XNS Protocol Package adheres to Xerox protocol standards: Courier, SPP, and IDP—making it compatible with other standard products, present and future.

Whether you are responsible for designing a communication environment around your company's product line, or interconnecting your company's computer resources, ACCES XNS meets your network design requirements.

To learn more about ACCES XNS, Courier, and Remote Procedure Calls, phone ACC at (805) 963-9431 and we'll gladly send you the ACCES XNS Brochure.

We Make Advanced Computers Communicate.



ACC

Network Designers—Introducing the simplicity of a Remote Procedure Call ...ACCES XNS.

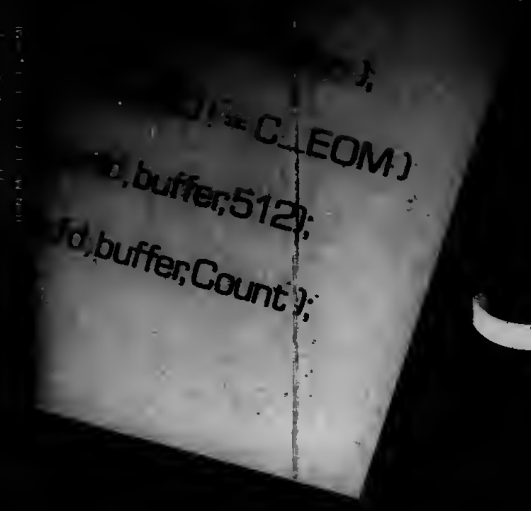
ACCES XNS is ACC's networking protocol package ready for use on popular minicomputers and work stations. It links applications and system level programs to data files and processing services in your distributed computer environment...through simple Remote Procedure Calls.

The ACCES XNS Protocol Package adheres to Xerox protocol standards: Courier, SPP, and IDP—making it compatible with other standard products, present and future.

Whether you are responsible for designing a communication environment around your company's product line, or interconnecting your company's computer resources, ACCES XNS meets your network design requirements.

To learn more about ACCES XNS, Courier, and Remote Procedure Calls, phone ACC at (805) 963-9431 and we'll gladly send you the ACCES XNS Brochure.

We Make Advanced Computers Communicate.



ACC

Index to Local-Area Networks by Topology

A local-area network is a communications network that permits the interconnection of data communications devices within a limited distance. The local network shares a common medium, has high-speed broadcasting ability and is generally shared by all users. In addition, the network must support distributed processing, file transfer, data base management and access to long-haul networks. The index has been sorted by network topology — bus (linear or tree), star or ring. The final section of the index includes all networks which utilize other topologies or have unspecified topologies. Within each section, products are listed alphabetically by vendor and contain information on transmission technique, price and the page on which the complete listing can be found.

Bus (Linear) Networks

VENDOR	MODEL	TECHNIQUE	PRICE	PAGE
Alspa Computer, Inc.	ALSPA NET	Baseband	$1,500	C-5
AST Research, Inc.	AST PCNET	Baseband	$695	C-5
Bridge	8500 LOCAL CONTROLLER (ELAN SYSTEM)	Broadband	$19,495 to $29,495	C-5
Bumblebee Energy Systems	BUMBLEBEE NETWORK	Baseband	$100 to $150	C-5
Codex Corp.	4000 SERIES LAN	Baseband	N/A	C-5
Comintec, Inc.	MDS 9070 NETWORKING OPTION	Baseband	N/A	C-5
Complex Systems,Inc.	X LAN	Baseband	$292	C-5
Compsurv	OMEGANET	Baseband	N/A	C-5
Computer Automation, Inc.	SYFANET	Broadband	N/A	C-5
Computrol	MEGA LINK	Baseband	$100 to $3,000	C-5
Convergent Technologies, Inc.	CT-CLUSTER	Baseband	N/A	C-5
Corvus Systems, Inc.	OMNINET	Baseband	$495 to $1,320	C-5
CYB Systems, Inc.	UNITE	Baseband	N/A	C-5
Data General Corp.	XODIAC/NETWORK BUS SYSTEM/4460	Baseband	N/A	C-5
DCA/TAC	DCA INA/NETWORK	Broadband/Baseband	N/A	C-7
Delta Systems, Inc.	WHITE BOX I	Broadband	$1,500	C-7
The Destek Group	DESNET	Fiber Optics	$500 to $700	C-7
Digital Equipment Corp.	DECNET	Broadband/Baseband	N/A	C-7
Gateway Communications, Inc.	G/NET	Baseband	$595	C-7
Harris Corp.	HARRIS 9070 (BASEBAND)	Baseband	$1,250	C-8
	HARRIS 9070 (BROADBAND)	Broadband	$1,250	C-8
IBI Associates, Inc.	IDEANET/NPR-001 SPR-1N	Baseband	N/A	C-8
Interlan, Inc.	INTERLAN NET/PLUS	Baseband	$400	C-8
Inter-Link	STATIONMATE	Baseband	$1,450	C-8
Interoll Systems, Inc.	GE NET	Broadband	$800 to $1,000	C-8
JC Systems	JCS A-10	Broadband	$495	C-9
Metapath, Inc.	ROBIN DESKTOP DATA SWITCH	Baseband	$400	C-5
NBI, Inc.	NBI NET	Baseband	$800	C-5
NCR Corp.	NCR DECISION NET	Baseband	$500	C-9
Network Systems Corp.	HYPER CHANNEL	Baseband	$40,000	C-10
Novell Inc.	NETWARE-X	Baseband	$995	C-10
Omnidata	OMNINET	Baseband	$500 to $1,000	C-10
Proginetics, Inc.	TIENET	Baseband	$800 to $900	C-10
Raytheon Co.	RAYNET IV	Broadband	N/A	C-11
Standard Data Corp.	STANDARD NET	Baseband	$995	C-11
Tecmar, Inc.	ELAN	Baseband	$1,695 to $3,395	C-12
Ungermann-Bass, Inc.	NET/ONE BASEBAND NETWORK INTERFACE UNIT	Baseband	N/A	C-12
Xerox Corp.	ETHERNET	Baseband	$500 to $20,000	C-12
Xyplex Inc.	XYPLEX SYSTEM	Broadband	$300	C-12

Bus (Tree) Networks

VENDOR	MODEL	TECHNIQUE	PRICE	PAGE
Able Computer	EASYWAY/E ETHERNET CONTROLLER	Baseband	$7,200	C-4
Applitek Corp.	UNILAN FIBER OPTIC	Fiber Optics	N/A	C-4
	UNILAN I	Baseband	N/A	C-5
	UNILAN II	Broadband	N/A	C-4
BBN Communications Corp.	BBNCC X.25 PACKET SWITCHING NET	Packet	N/A	C-5
Concord Data Systems, Inc.	TOKEN/NET	Broadband	$500 to $1,000	C-5

Local-Area Network Index

VENDOR	MODEL	TECHNIQUE	PRICE	PAGE
Contel Information Systems	CONTEL NET	*Baseband/Broadband*	*$300 to $500*	C-6
CR Computer Systems	X-NET	*Baseband*	*$1,000*	C-6
Datapoint Corp.	ARC	*Baseband*	*$5,950 to $8,950*	C-6
Gould, Inc.	MODWAY	*Baseband/Broadband*	*$1,500*	C-6
Ideas, Inc.	INET	*Broadband*	*$500*	C-6
Interactive Systems/3M	VIDEODATA LAN/1	*Broadband*	*$400 to $800*	C-6
Modular Computer Systems, Inc.	MAX NET	*Baseband*	*$3,500 to $30,000*	C-6
NCR Corp.	MIRLAN (MID RANGE LAN)	*Baseband*	*N/A*	C-6
Network System Corp.	HYPER BUS	*Baseband*	*$8,000*	C-10
PERQ Systems	ETHERNET	*Broadband*	*N/A*	C-10
Syntrex, Inc.	SYNNET	*Baseband*	*$650*	C-11
Sytek, Inc.	LOCAL NET	*Broadband*	*$345 to $545*	C-11
Ungermann-Bass, Inc.	NET/ONE BROADBAND NETWORK INTERFACE UNIT	*Broadband*	*N/A*	C-12
	SERIES 600 PRODUCTS	*Broadband*	*N/A*	C-12
Western Telematic, Inc.	SS-8	*Baseband*	*$695*	C-13
3 Com Corp.	ETHERSERIES	*Baseband*	*$950*	C-12

Star Networks

VENDOR	MODEL	TECHNIQUE	PRICE	PAGE
Astra Telecomm Labs	ATL NET	*Baseband*	*N/A*	C-4
American Photonics, Inc.	64 NET	*Fiber Optics*	*N/A*	C-4
Datacom Corp.	PROF COMMUNICATIONS MANAGER 2000	*Baseband*	*$1,300 to $2,500*	C-4
Codenoll Technology Corp.	CODENET	*Baseband*	*$150 to $900*	C-5
Computer Comm. Specialists, Inc.	TASK 1000	*Baseband*	*N/A*	C-5
CPT Corp.	OFFICE DIALOGUE	*Baseband*	*$30,000 to $42,000*	C-6
Cygnet Technologies, Inc.	COSYSTEM	*Broadband*	*$1,495 to $1,845*	C-6
Digital Microsystems, Inc.	HINET	*Baseband*	*$950*	C-7
Sandulf Data Inc.	PACXNET	*Baseband*	*$500 to $135*	C-7
IBE Associates, Inc.	IDEASHARE/SPR-IS	*RS232*	*N/A*	C-4
InfoCom Inc	LANMARK	*Baseband*	*$300 to $900*	C-8
		TDM	*$100 to $250*	C-9
Micom Systems, Inc.	INSTANET	*Baseband*	*$2,000 to $100,000*	C-9
Nestar Systems, Inc.	PLAN SERIES	*Baseband*	*$250*	C-10
Novell Inc.	NETWARE-S	*Baseband*	*$800*	C-10
Peripheral Technology, Inc.	SNC	*Baseband/Broadband*	*$800 to $2,800*	C-11
Protean Associates, Inc.	PRONET	*Baseband*	*$4,000 to $6,000*	C-11
Stearn Computer Systems Corp.	MICRONETWORK	*Broadband*	*$450*	C-12
Tultone Corp.	DCS-2	*Broadband*	*N/A*	C-12
Transfer Systems Ltd.	WEB	*Baseband*	*N/A*	C-12
Ungermann-Bass, Inc.	NET/ONE *Fiber Optics* INTERFACE			

Ring Networks

VENDOR	MODEL	TECHNIQUE	PRICE	PAGE
Davong, Inc.	CONVENER-NETWORK CONFERENCING UNIT	*Baseband*	*$550 to $1,700*	C-6
	CONVENER-PHONE CONFERENCING UNIT	*Baseband*	*$550 to $1,700*	C-6
	DAROME 2020 COCONVENER	*Baseband*	*N/A*	C-6
Davong Systems, Inc.	DS200-015	*Baseband*	*$945*	C-7
Fujitsu America, Inc.	OPTICAL DATA HIGHWAY	*Fiber Optics*	*N/A*	C-7
Logica, Inc.	POLYNET	*Baseband*	*$1,400 to $4,900*	C-8
Northern Telecom, Inc.	NORTHERN TELECOM, INC	*Baseband*	*$1,800 to $1,800*	C-10
Parcom Data Corp.	PERCOM NET	*Baseband*	*$595 to $1,700*	C-10
Phoenix Digital Corp.	OPTONET	*Baseband*	*$100,000*	C-10
Prime Computer, Inc.	RINGNET	*Baseband*	*$5,000*	C-11
Proteon Corp.	PROLOOP NETWORK	*Baseband*	*N/A*	C-11
Racal-Milgo, Inc.	PLANET	*Baseband*	*$600 to $900*	C-11
Stratus Computer, Inc.	STRATALINK	*Baseband*	*N/A*	C-11
Ulanscore, Inc.	WINNET	*Broadband*	*$100*	C-12
Ztel, Inc.	ZTEL LAN	*Baseband*	*N/A*	C-13

Networks Using Other Topologies

VENDOR	MODEL	TECHNIQUE	PRICE	PAGE
American Laser Systems, Inc.	736/NOVA-SR OPTICAL DATA/VOICE	*Digital*	*$7,000 to $13,000*	C-4
	MODEL 761 VIDEO TRANSMISSION	*Baseband*	*$7,750*	C-4
	MODEL 829 WIDEBAND DIGITAL INFRARED	*Baseband*	*$14,000*	C-5
Artel Communications Corp.	CV100 CAD/CAM SYSTEM	*Baseband*	*N/A*	C-5

Local-Area Network Index

VENDOR	MODEL	TECHNIQUE	PRICE	PAGE
Artel Communications Corp.	LS100 INTERFACE MODEM	*Baseband*	*N/A*	*C-6*
	T2010/K2010 HIGH-SPEED DATA TRANS.	*Baseband*	*N/A*	*C-6*
	TR2016/TR2017 RGB VIDEO/DATA	*Baseband*	*N/A*	*C-6*
Auscom, Inc.	8911A CHANNEL INTERFACE	*IBM TO LAN*	*N/A*	*C-6*
Bachus Data Systems, Inc.	SIX PORT SWITCHING SYSTEMS	*N/A*	*N/A*	*C-6*
Datahit, Inc.	ANP 2520 (ADVANCED NETWORK PROCESSOR)	*Packet*	*N/A*	*C-6*
	EDX-P	*Packet*	*N/A*	*C-6*
Datastream Communication, Inc.	774	*Baseband*	*$4,000 to $10,000*	*C-7*
	776	*Baseband*	*$4,000 to $6,000*	*C-7*
	874	*Baseband*	*$16,000*	*C-7*
	MPC	*Baseband*	*$8,000 to $12,000*	*C-7*
General Electric Co.	GEMLINK LDS-072A	*Microwave*	*N/A*	*C-8*
	GEMLINK LSD-112A/122A	*Microwave*	*N/A*	*C-8*
	LSD-092A	*Microwave*	*N/A*	*C-8*
	GEMLINK LDS-062A	*Microwave*	*N/A*	*C-8*
Infolink	SYSTEM 5000	*Baseband*	*$2,000 to $4,000*	*C-8*
ITT Telecom Products, Inc.	MULTITENENT	*Baseband*	*N/A*	*C-8*
Lynch Communication Systems	VOICE PLUS DATA SUBSCRIBER CARRIER	*FSK*	*$203 to $256*	*C-9*
Network Products, Inc.	LOCAL MUX	*Baseband*	*$108*	*C-9*
Orchid Technology, Inc.	PC NET	*Baseband*	*$695*	*C-10*
Scientific Data Systems, Inc.	SDS NETWORK	*Broadband*	*$5,000 to $6,000*	*C-11*
Tandem Computers, Inc.	NONSTOP II	*Fiber Optic*	*N/A*	*C-11*
	NONSTOP TXP	*Fiber Optic*	*N/A*	*C-12*
	NONSTOP 1	*Fiber Optic*	*N/A*	*C-12*

ABLE COMPUTER
EASYWAY/E ETHERNET CONTROLLER
Topology: Bus (tree)
Network Type: Baseband
Maximum Physical Connections: 1,024
Maximum Distance: 9,240 Feet
Transmission Media: Terrestrial Coaxial Cable
Access Method: Distributed CSMA/CD (Contention Type)
Protocols Supported: IEEE 802.3 Ethernet
Network Compatibility: DEC DNA/Decnet, IEEE 802.3, NBS4 Intel
Advanced Functions: Diagnostics, Usage/Traffic Reporting
Price:
Purchase: $7,200
Distribution Method: End user
Date First Installed: September 1983
(See Vendor Profile Page V-1)

AETNA TELECOMM LABS
ATL NET
Topology: Star
Network Type: Baseband
Maximum Physical Connections: 19
Transmission Media: Terrestrial Fiber Optics
Access Method: Round Robin
Protocols Supported: Asynchronous, Synchronous, X.25, Bisynchronous, T-1, SDLC, HDLC, Ascii
Network Compatibility: DEC DNA/Decnet, IBM BSC, Telenet, DDS, Tymnet
Interfaces Supported: RS 232C, RS 422/423, RS 449, CCITT
(See Vendor Profile Page V-1)

ALSPA COMPUTER, INC.
ALSPA NET
Topology: Bus (Linear)
Network Type: Baseband
Maximum Physical Connections: 255
Maximum Distance: 2,000 Feet
Transmission Media: Terrestrial Twisted Wire
Access Method: CSMA/CD (Contention Type)
Protocols Supported: Asynchronous, SDLC, HDLC, Ascii
Network Compatibility: Telenet
Interfaces Supported: RS 232C, RS 422/423
Advanced Functions: Diagnostics, Usage/Traffic Reporting
Price:
Purchase: $1,500
Distribution Method: Third-party
Number Installed to Date: Over 100
Date First Installed: April 1983
(See Vendor Profile Page V-1)

AMERICAN LASER SYSTEMS, INC.
730 & NOVA-SR INFRARED OPTICAL DATA/VOICE SYSTEM
Topology: Point to Point
Network Type: Digital
Maximum Distance: 10 Miles
Transmission Media: Free Space Infrared Light, Laser
Protocols Supported: Asynchronous, Synchronous, Bisynchronous
Interfaces Supported: RS 232C, TTL Input
Price:
Lease: $1,300
Purchase: $7,000 to $13,000
Distribution Method: End user
Number Installed to Date: 231
Date First Installed: 1974
(See Vendor Profile Page V-2)

AMERICAN LASER SYSTEMS, INC.
MODEL 761 VIDEO TRANSMISSION SYSTEM
Network Type: Baseband
Maximum Physical Connections: 4
Transmission Media: Free Space Infrared Light
Price:
Lease: $775
Purchase: $7,750
Average Monthly Maintenance: $80
Distribution Method: End user
Number Installed to Date: 210
Date First Installed: 1975

AMERICAN LASER SYSTEMS, INC.
MODEL 820 WIDEBAND DIGITAL INFRARED TRANSMISSION SYSTEM
Topology: Point to Point
Network Type: Baseband
Maximum Physical Connections: 1
Maximum Distance: 7,500 Feet
Transmission Media: Free Space Infrared Light, Laser
Protocols Supported: T-1
Interfaces Supported: TI OR TTL
Advanced Functions: Security/Encryption
Price:
Lease: $700
Purchase: $14,000
Distribution Method: End user
Number Installed to Date: 1 to 10
Date First Installed: 1983

AMERICAN PHOTONICS, INC.
64 NET
Topology: Star
Network Type: Fiber Optic
Maximum Physical Connections: 1
Maximum Distance: 1,000 Feet
Transmission Media: Terrestrial Fiber Optics, Free Space Laser
Protocols Supported: Asynchronous
Interfaces Supported: RS-232C, IEEE 488
Distribution Method: End user
Number Installed to Date: 1 to 10
Date First Installed: November 1983
(See Vendor Profile Page V-2)

APPLITEK CORP.
UNILAN FIBER OPTIC
Topology: Bus (tree)
Network Type: Fiber Optic
Maximum Physical Connections: 1,000
Maximum Distance: 30 Miles
Transmission Media: Terrestrial Coaxial Cable, Fiber Optics
Access Method: Distributed CSMA/CD (Contention Type), Token Passing (Polling Types)
Protocols Supported: Asynchronous, Synchronous, X.25, Bisynchronous, HDLC, Ascii
Interfaces Supported: RS-232C, IEEE 488, RS-449, V.35
Advanced Functions: Security/Encryption
Distribution Method: End user
(See Vendor Profile Page V-2)

APPLITEK CORP.
UNILAN I
Topology: Bus (tree)
Network Type: Baseband
Maximum Physical Connections: 1,000
Maximum Distance: 2 Miles
Transmission Media: Terrestrial Coaxial Cable, Fiber Optics
Access Method: Distributed CSMA/CD (Contention Type), Token Passing (Polling Types)
Protocols Supported: Asynchronous, Synchronous, X.25, Bisynchronous, HDLC, Ascii
Interfaces Supported: RS-232C, IEEE 488, RS-449, V.3.5
Advanced Functions: Security/Encryption, Diagnostics
Distribution Method: End user

APPLITEK CORP.
UNILAN II
Topology: Bus (tree)
Network Type: Broadband
Maximum Physical Connections: 40,000
Maximum Distance: 30 Miles
Transmission Media: Terrestrial Coaxial Cable, Fiber Optics
Access Method: Distributed CSMA/CD (Contention Type), Token Passing (Polling Types)
Protocols Supported: Asynchronous, Synchronous, X.25, Bisynchronous, HDLC, Ascii
Interfaces Supported: RS-232C, IEEE 488, RS-449, V.35
Distribution Method: End user

ARTEL COMMUNICATIONS CORP.
CV100 CAD/CAM SYSTEM
Topology: End to End
Network Type: Baseband
Maximum Distance: 2 Miles
Protocols Supported: Asynchronous, Synchronous
Network Compatibility: Computervision
Distribution Method: End user
(See Vendor Profile Page V-3)

ARTEL COMMUNICATIONS CORP.
LS100 INTERFACE MODEM
Topology: End to End
Network Type: Baseband
Maximum Distance: 16,400 Feet
Transmission Media: Terrestrial Fiber Optics
Network Compatibility: IBM 3250 Compatible
Distribution Method: End user

ARTEL COMMUNICATIONS CORP.
T2816/R3616 HIGH SPEED DATA TRANSMISSION
Topology: End to End
Network Type: Baseband
Maximum Distance: 2 Miles
Transmission Media: Terrestrial Fiber Optics
Protocols Supported: Asynchronous
Interfaces Supported: RS-232C, TTL/ECL
Distribution Method: End user

ARTEL COMMUNICATIONS CORP.
TR3016/TR3017 RGB VIDEO & DATA MODULES
Topology: End to End
Network Type: Baseband
Maximum Distance: 10,000 Feet
Protocols Supported: Asynchronous
Interfaces Supported: RS-232C, TTL
Distribution Method: End user

AST RESEARCH, INC.
AST PCNET
Topology: Bus (Linear)
Network Type: Baseband
Maximum Physical Connections: 256
Maximum Distance: 7,000 Feet
Transmission Media: Terrestrial Coaxial Cable
Access Method: Distributed CSMA/CD (Contention Type)
Protocols Supported: Asynchronous, Bisynchronous
Network Compatibility: IBM BSC
Advanced Functions: Diagnostics, Performance Analysis, Usage/Traffic Reporting
Price:
Purchase: $695
Date First Installed: May 1983
(See Vendor Profile Page V-3)

AUSCOM, INC.
9811A PROGRAMMABLE CHANNEL INTERFACE
Network Type: IBM to LAN
(See Vendor Profile Page V-3)

BACKUS DATA SYSTEMS, INC.
SIX PORT SWITCHING SYSTEMS
Protocols Supported: Asynchronous, Synchronous, Ascii
Interfaces Supported: RS-232C
Advanced Functions: Security/Encryption, Usage/Traffic Reporting
Distribution Method: End user
Number Installed to Date: 50 to 100
(See Vendor Profile Page V-3)

BBN COMMUNICATIONS CORP.
BBNCC X.25 PACKET SWITCHING NETWORK
Topology: Bus (tree), Star, Ring, Arbitrary Mesh
Network Type: Packet-Switched
Maximum Physical Connections: 255
Transmission Media: Terrestrial Twisted Wire, Free Space Microwaves and Satellite
Access Method: X.25, X.28
Protocols Supported: Asynchronous, Synchronous, X.25, Bisynchronous, SDLC, HDLC, Ascii,

X.3, X.28, X.29
Network Compatibility: IBM SNA, DEC DNA/Decnet, IBM BSC, Honeywell DSE/DSA, Burroughs BNA, Primenet, HP DSN, Telenet, DDS, Tymnet, X.25 Packet SVS
Interfaces Supported: RS-232C, RS-422/423, MIL 188C, RS-449, CCITT, V.28, V.24
Advanced Functions: Security/Encryption, Diagnostics, Performance Analysis, Accounting and Billing, Downline Loading
Average Monthly Maintenance: $1
Distribution Method: End user, OEM
Number Installed to Date: 10 to 25
Date First Installed: January 1989
(See Vendor Profile Page V-4)

BETACOM CORP.
PROF COMMUNICATIONS MANAGER 6000
Topology: Star
Network Type: Baseband
Transmission Media: Free Space Laser, PBX to Satellite
Access Method: Centralized PBX (Switching Type)
Protocols Supported: Asynchronous, Synchronous, Bisynchronous, SDLC, Ascii, Baudot, TWX, Telex
Network Compatibility: IBM SNA, IBM BSC, Telenet, Tymnet, TWX
Interfaces Supported: RS-232C
Advanced Functions: Diagnostics, Usage/Traffic Reporting
Price:
Purchase: $1,300 to $2,500
Average Monthly Maintenance: $13
Distribution Method: End user
Number Installed to Date: Over 100
(See Vendor Profile Page V-4)

BRANDEN CORP.
6000 LOCAL CONTROLLER (ELAN SYSTEM)
Topology: Bus (Linear)
Network Type: Broadband
Maximum Physical Connections: 120
Transmission Media: Terrestrial Coaxial Cable
Access Method: Distributed CSMA/CD (Contention Type)
Protocols Supported: Bisynchronous, SDLC, SNA SDLC
Network Compatibility: IBM SNA, IBM BSC
Interfaces Supported: RS-232C
Advanced Functions: Security/Encryption, Diagnostics, Screen Format Selectable
Price:
Lease: $525 to $725
Purchase: $19,495 to $29,495
Average Monthly Maintenance: $85
Distribution Method: End user
Number Installed to Date: 10 to 25
Date First Installed: 1983
(See Vendor Profile Page V-4)

BURRLESEE ENERGY SYSTEMS
BURRLESEE NETWORK
Topology: Bus (Linear)
Network Type: Baseband
Maximum Physical Connections: 256
Maximum Distance: 4 Miles
Transmission Media: Terrestrial Twisted Wire
Access Method: Centralized Master/Slave Polling
Protocols Supported: Asynchronous
Interfaces Supported: RS-232C
Advanced Functions: Diagnostics
Price:
Purchase: $100 to $150
Average Monthly Maintenance: $10
Distribution Method: End user
Number Installed to Date: 10 to 25
Date First Installed: June 1981
(See Vendor Profile Page V-4)

CODENOLL TECHNOLOGY CORP.
CODENET
Topology: Star
Network Type: Baseband
Maximum Physical Connections: 1,024
Maximum Distance: 4 Miles
Transmission Media: Fiber Optics
Access Method: Distributed CSMA/CD (Contention Type)
Protocols Supported: Transparent
Network Compatibility: IBM SNA, DEC DNA/Decnet, Primenet, Omninet, Tymnet
Interfaces Supported: IEEE 488, Ethernet
Advanced Functions: Security/Encryption, Performance Analysis
Price:
Purchase: $150 to $800
Distribution Method: End user
Number Installed to Date: 25 to 50
Date First Installed: June 1981
(See Vendor Profile Page V-5)

CODEX CORP.
4000 SERIES LAN
Topology: Bus (Linear)
Network Type: Baseband
Transmission Media: Terrestrial Coaxial Cable , Fiber Optics
Access Method: Distributed CSMA/CD (Contention Type)
Protocols Supported: Asynchronous, Synchronous, X.25, Bisynchronous, HDLC, Ascii
Network Compatibility: IBM SNA, IBM BSC, Honeywell DSE/DSA, Burroughs BNA, Sperry DCA, XNS (Xerox), HP DSN
Interfaces Supported: RS-232C, IEEE 488, RS-422/423, RS-449
Advanced Functions: Diagnostics, Usage/Traffic Reporting
Distribution Method: End user
Date First Installed: January 1984
(See Vendor Profile Page V-5)

COMMTEX, INC.
MDS 5070 NETWORKING OPTION
Topology: Bus (Linear and Tree), Star
Network Type: Baseband
Maximum Physical Connections: 255
Maximum Distance: 20,000 Feet
Transmission Media: Terrestrial Coaxial Cable
Access Method: Distributed Token Passing (Polling Types)
Protocols Supported: Asynchronous, Bisynchronous, SDLC, Ascii, 3270
Network Compatibility: IBM SNA, IBM BSC
Interfaces Supported: RS-232C, RS-422/423, MIL 188C, 20 mA Current Loop
Advanced Functions: Security/Encryption, Diagnostics
Distribution Method: Third-party
(See Vendor Profile Page V-6)

COMPLEX SYSTEMS, INC.
X LAN
Topology: Bus (Linear)
Network Type: Baseband
Maximum Physical Connections: 64
Maximum Distance: 10,000 Feet
Transmission Media: Terrestrial Twisted Wire
Access Method: Distributed CSMA/CD (Contention Type)
Protocols Supported: Asynchronous, Ascii
Interfaces Supported: RS-232C
Advanced Functions: Diagnostics, Performance Analysis, Usage/Traffic Reporting
Price:
Purchase: $202
Distribution Method: Third-party
Date First Installed: November 1983
(See Vendor Profile Page V-6)

COMPUCORP
OMEGANET
Topology: Bus (Linear)
Network Type: Baseband
Maximum Physical Connections: 33
Maximum Distance: 5,000 Feet
Transmission Media: Terrestrial Coaxial Cable
Access Method: CSMA/CA
Protocols Supported: Asynchronous
Network Compatibility: Proprietary
Interfaces Supported: RS-232C, RS-422/423
Advanced Functions: Security/Encryption, Diagnostics, Performance Analysis, Usage/Traffic Reporting
Distribution Method: Third-party
Number Installed to Date: Over 100
Date First Installed: February 1982
(See Vendor Profile Page V-6)

COMPUTER AUTOMATION, INC.
SYFANET
Topology: Bus (Linear)
Network Type: Broadband
Maximum Physical Connections: 64
Maximum Distance: 5,000 Feet
Transmission Media: Terrestrial Coaxial Cable
Access Method: Broadcast
Protocols Supported: X.25, Bisynchronous, SNA
Network Compatibility: IBM SNA, IBM BSC
Interfaces Supported: RS-232C
Advanced Functions: Security/Encryption, Diagnostics, Usage/Traffic Reporting
Distribution Method: End user, Third-party
Number Installed to Date: 1 to 10
Date First Installed: 1983
(See Vendor Profile Page V-6)

COMPUTER COMMUNICATIONS SPECIALISTS, INC.
TASK 1000
Topology: Star
Network Type: Baseband
Maximum Physical Connections: 64
Maximum Distance: 8,000 Feet
Transmission Media: Terrestrial Twisted Wire
Access Method: Interupt
Protocols Supported: Ansi
Interfaces Supported: RS-232C, Parallel
Advanced Functions: Diagnostics, Performance Analysis, Usage/Traffic Reporting
Distribution Method: End user
Number Installed to Date: 1 to 10
Date First Installed: 1982
(See Vendor Profile Page V-6)

COMSPHERE
MEGA LINK
Topology: Bus (Linear)
Network Type: Baseband
Maximum Physical Connections: 100
Maximum Distance: 50,000 Feet
Transmission Media: Terrestrial Coaxial Cable
Access Method: Centralized Master/Slave Polling, Distributed CSMA/CD (Contention Type)
Protocols Supported: Asynchronous, SDLC, HDLC
Network Compatibility: DEC DNA/Decnet
Interfaces Supported: RS-232C, IEEE 488, High-Speed Bus
Advanced Functions: Diagnostics
Price:
Purchase: $100 to $3,000
Distribution Method: End user, OEM, Third-party
Number Installed to Date: Over 100
Date First Installed: May 1980
(See Vendor Profile Page V-7)

CONCORD DATA SYSTEMS INC.
TOKENNET
Topology: Bus (tree)
Network Type: Broadband
Maximum Physical Connections: 2,000
Maximum Distance: 25 Miles
Transmission Media: Terrestrial Coaxial Cable
Access Method: Distributed Token Passing (Polling Types)
Protocols Supported: Asynchronous, Hasp, Synchronous, X.25, Bisynchronous, T-1, SDLC, HDLC, Ascii
Network Compatibility: IEEE 802.4
Interfaces Supported: RS-232C, IEEE 488, RS-449, V.24
Advanced Functions: Security/Encryption, Diagnostics, Performance Analysis, Usage/Traffic Reporting
Price:
Purchase: $500 to $1,000

Distribution Method: End user, OEM
Number Installed to Date: 1 to 10
Date First Installed: October 1983
(See Vendor Profile Page V-7)

CONTEL INFORMATION SYSTEMS
CONTEL NET
Topology: Bus (tree)
Network Type: Both
Maximum Physical Connections: 5,000
Maximum Distance: 5 Miles
Transmission Media: Terrestrial Coaxial Cable
Access Method: Distributed CSMA/CD (Contention Type)
Protocols Supported: Asynchronous, X.25, Bisynchronous, 3270
Interfaces Supported: RS-232C
Advanced Functions: Security/Encryption, Diagnostics, Performance Analysis, Usage/Traffic Reporting
Price:
Purchase: $300 to $500
Distribution Method: End user
Number Installed to Date: 25 to 50
Date First Installed: 1981
(See Vendor Profile Page V-7)

CONVERGENT TECHNOLOGIES, INC.
CT-CLUSTER
Topology: Bus (Linear)
Network Type: Baseband
Maximum Physical Connections: 255
Maximum Distance: 2,500 Feet
Transmission Media: Terrestrial Twisted Wire
Access Method: Centralized Master/Slave Polling
Protocols Supported: Synchronous, X.25, Bisynchronous, SDLC, HDLC, Ascii, SNA
Network Compatibility: IBM SNA, IBM BSC, Telenet, Tymnet
Interfaces Supported: RS-232C
Distribution Method: OEM
Number Installed to Date: Over 100
Date First Installed: November 1980
(See Vendor Profile Page V-8)

CORVUS SYSTEMS, INC.
OMNINET
Topology: Bus (Linear)
Network Type: Baseband
Maximum Physical Connections: 64
Maximum Distance: 4,000 Feet
Transmission Media: Terrestrial Twisted Wire
Access Method: Distributed CSMA/CD (Contention Type)
Protocols Supported: Asynchronous, X.25, Ascii
Network Compatibility: IBM SNA
Interfaces Supported: RS-232C, IEEE 488, RS-422/423
Advanced Functions: Diagnostics
Price:
Purchase: $495 to $1,500
Distribution Method: Third-party
Number Installed to Date: Over 100
Date First Installed: September 1979
(See Vendor Profile Page V-8)

CPT CORP.
OFFICE DIALOGUE
Topology: Star
Network Type: Baseband
Maximum Physical Connections: 16
Transmission Media: Terrestrial Twisted Wire
Access Method: Master/Slave Polling (Centralized)
Protocols Supported: Bisynchronous, SDLC, Ascii, X.25 HDLC
Network Compatibility: IBM SNA, X.25
Interfaces Supported: RS-232C, RS-422/423
Advanced Functions: Security/Encryption, Diagnostics
Price:
Purchase: $30,000 to $42,000
Distribution Method: Third-party
(See Vendor Profile Page V-8)

CR COMPUTER SYSTEMS
X-NET
Topology: Bus (tree)
Network Type: Baseband
Maximum Physical Connections: 2,032
Maximum Distance: 3 Miles
Transmission Media: Twin-Ax
Access Method: Centralized Master/Slave Polling
Protocols Supported: Asynchronous, Synchronous, X.25, Bisynchronous, SDLC, HDLC, Ascii
Network Compatibility: IBM SNA, DEC DNA/Decnet, IBM BSC, Honeywell DSE/DSA, Burroughs BNA, Sperry DCA, HP DSN
Interfaces Supported: RS-232C
Advanced Functions: Security/Encryption, Diagnostics, Performance Analysis, Usage/Traffic Reporting
Price:
Purchase: $1,000
Distribution Method: End user
Number Installed to Date: 50 to 100
Date First Installed: February 1972
(See Vendor Profile Page V-8)

CYB SYSTEMS, INC.
UNITE
Topology: Bus (Linear)
Network Type: Baseband
Maximum Physical Connections: 32
Maximum Distance: 1,000 Feet
Transmission Media: Terrestrial Coaxial Cable
Interfaces Supported: RS-232C
Advanced Functions: MOD, DDS, Unix, Passwording
Distribution Method: End user
Number Installed to Date: 1 to 10
(See Vendor Profile Page V-9)

CYGNET TECHNOLOGIES, INC.
COSYSTEM
Topology: Star
Network Type: Broadband
Maximum Distance: 3,000 Miles
Transmission Media: Terrestrial Twisted Wire
Protocols Supported: Hasp, Synchronous, X.25, Bisynchronous, T-1, SDLC, HDLC
Network Compatibility: IBM BSC, HP DSN
Interfaces Supported: Ascii
Asynchronous
Advanced Functions: Security/Encryption, Diagnostics, Usage/Traffic Reporting
Price:
Purchase: $1,495 to $1,845
Distribution Method: Third-party
Date First Installed: September 1983
(See Vendor Profile Page V-9)

DAROMS, INC.
CONVENER-NETWORK CONFERENCING UNIT
Topology: Ring
Network Type: Baseband
Maximum Physical Connections: 20
Transmission Media: Terrestrial Twisted Wire
Access Method: Dial-up
Price:
Purchase: $550 to $1,700
Distribution Method: End user
Number Installed to Date: Over 100
Date First Installed: 1972
(See Vendor Profile Page V-9)

DAROMS, INC.
CONVENER-PHONE CONFERENCING UNIT
Topology: Ring
Network Type: Baseband
Maximum Physical Connections: 20
Transmission Media: Terrestrial Twisted Wire
Access Method: Dial-up
Price:
Purchase: $550 to $1,700
Distribution Method: End user
Number Installed to Date: Over 100
Date First Installed: 1972

DAROMS, INC.
DAROME 2030 COCONVENER
Topology: Ring
Network Type: Baseband
Maximum Physical Connections: 20
Access Method: Dial-up
Distribution Method: End user
Number Installed to Date: 50 to 100
Date First Installed: 1976

DATABIT, INC.
AMP 2530 (ADVANCED NETWORK PROCESSOR)
Topology: Wide Area Packet-Switching
Network Type: Packet-Switching
Protocols Supported: Asynchronous, X.25, Bisynchronous, Ascii, 3270 BSC
Network Compatibility: IBM BSC, Telenet, Tymnet, X.25, X.75, Gateway
Interfaces Supported: RS-232C, RS-422/423, V.35
Advanced Functions: Performance Analysis, Alarms, On-line Configuration
Number Installed to Date: 10 to 25
Date First Installed: September 1983
(See Vendor Profile Page V-9)

DATABIT, INC.
EDX-P
Network Type: Packet-Switching
Transmission Media: Terrestrial Twisted Wire, Coaxial Cable; Free-Space Fiber Optics, Infrared Light, Microwaves; Satellite
Access Method: Centralized PBX (Switching Type), Master/Slave Polling, X.25, X.75
Protocols Supported: Asynchronous, Synchronous, X.25, Bisynchronous, HDLC, Ascii
Network Compatibility: IBM BSC, Telenet, DDS, Tymnet, Packet
Interfaces Supported: RS-232C, CCITT
Advanced Functions: Diagnostics, Performance Analysis, Usage/Traffic Reporting, Error Checking, Congestion Control
Distribution Method: End user
Number Installed to Date: 50 to 100
Date First Installed: 1981

DATA GENERAL CORP.
XODIAC/NETWORK BUS SYSTEM/4400
Topology: Bus (Linear)
Network Type: Baseband
Maximum Physical Connections: 32
Maximum Distance: 1 Mile
Transmission Media: Terrestrial Coaxial Cable
Access Method: Distributed Token Passing (Polling Types)
Protocols Supported: Xodiac
Network Compatibility: IBM SNA, IBM BSC, Telenet, Tymnet
Interfaces Supported: RS-232C, RS-422/423, MIL 188C, RS-449, CCITT
Distribution Method: End user
Date First Installed: February 1982
(See Vendor Profile Page V-9)

DATAPOINT CORP.
ARC
Topology: Bus (tree)
Network Type: Baseband
Maximum Physical Connections: 255
Maximum Distance: 4 Miles
Transmission Media: Terrestrial Coaxial Cable
Access Method: Distributed Token Passing (Polling Types)
Protocols Supported: Asynchronous, Synchronous, X.25, Bisynchronous, T-1, SDLC, HDLC, Ascii
Network Compatibility: IBM SNA, IBM BSC, Honeywell DSE/DSA, Burroughs BNA, Sperry DCA, Arc Link, Telenet, Tymnet
Interfaces Supported: RS-232C
Advanced Functions: Security/Encryption, Diagnostics, Performance Analysis, Usage/Traffic Reporting
Price:
Lease: $280 to $8
Purchase: $5,950 to $8,950
Average Monthly Maintenance: $70
Distribution Method: End user
Number Installed to Date: Over 100
Date First Installed: October 1977
(See Vendor Profile Page V-9)

DATASTREAM COMMUNICATION, INC.
774
Network Type: Baseband
Maximum Physical Connections: 64
Transmission Media: Terrestrial Coaxial Cable
Access Method: Dial-up
Protocols Supported: Bisynchronous, Ascii, Ebcdic
Network Compatibility: IBM SNA
Interfaces Supported: RS-232C
Advanced Functions: Security/Encryption, Diagnostics, Usage/Traffic Reporting
Price:
Purchase: $4,000 to $10,000
Average Monthly Maintenance: $125
Distribution Method: End user
Number Installed to Date: Over 100
Date First Installed: 1980
(See Vendor Profile Page V-9)

DATASTREAM COMMUNICATION, INC.
776
Network Type: Baseband
Maximum Physical Connections: 64
Transmission Media: Terrestrial Coaxial Cable
Access Method: Dial-up
Protocols Supported: Bisynchronous, Ascii, Ebcdic
Network Compatibility: IBM SNA
Interfaces Supported: RS-232C
Advanced Functions: Security/Encryption, Diagnostics, Usage/Traffic Reporting
Price:
Purchase: $4,000 to $8,000
Average Monthly Maintenance: $100
Distribution Method: End user
Number Installed to Date: Over 100
Date First Installed: 1980

DATASTREAM COMMUNICATION, INC.
874
Network Type: Baseband
Maximum Physical Connections: 64
Transmission Media: Terrestrial Coaxial Cable
Access Method: Dial-up
Protocols Supported: Ascii, Ebcdic
Network Compatibility: IBM SNA
Interfaces Supported: RS-232C
Advanced Functions: Security/Encryption, Diagnostics, Usage/Traffic Reporting
Price:
Purchase: $16,000
Average Monthly Maintenance: $115
Distribution Method: End user
Number Installed to Date: Over 100
Date First Installed: 1981

DATASTREAM COMMUNICATION, INC.
MPC
Network Type: Baseband
Maximum Physical Connections: 64
Transmission Media: Terrestrial Coaxial Cable
Access Method: Dial-up
Protocols Supported: Ascii, Ebcdic
Network Compatibility: IBM SNA
Interfaces Supported: RS-232C
Advanced Functions: Security/Encryption, Diagnostics, Usage/Traffic Reporting
Price:
Purchase: $6,000 to $12,000
Average Monthly Maintenance: $150
Distribution Method: End user
Number Installed to Date: 1 to 10
Date First Installed: January 1984

DAVONG SYSTEMS, INC.
DS800-615
Topology: Ring
Network Type: Baseband
Maximum Physical Connections: 255
Transmission Media: Terrestrial Coaxial Cable
Access Method: Distributed Token Passing (Polling Types)
Network Compatibility: IBM SNA, XNS (Xerox)
Advanced Functions: Diagnostics
Price:
Purchase: $645
Distribution Method: Third-party
Number Installed to Date: 50 to 100
Date First Installed: April 1983
(See Vendor Profile Page V-10)

DCA/TAC
DCA INA/NETWORK
Topology: Bus (Linear and Tree), Ring
Network Type: Both
Maximum Physical Connections: 32,767
Transmission Media: Terrestrial Twisted Wire, Coaxial Cable, Fiber Optics, Free Space Infrared Light, Microwaves, Laser, Satellite
Protocols Supported: Asynchronous, HASP, Synchronous, X.25, Bisynchronous, T-1, SDLC, HDLC, Ascii
Network Compatibility: IBM SNA, DEC DNA/Decnet, IBM BSC, Honeywell DSE/DSA, Burroughs BNA, Primenet, Sperry DCA, XNS (Xerox), HP DSN, Arc/Link, Omninet, Telenet, DDS, Tymnet
Interfaces Supported: RS-232C, RS-422/423, CCITT
Advanced Functions: Security/Encryption, Diagnostics, Performance Analysis, Usage/Traffic Reporting
Distribution Method: End user, OEM, Third-party
(See Vendor Profile Page V-10)

DELTA SYSTEMS, INC.
WHITE BOX I
Topology: Bus (Linear)
Network Type: Broadband
Maximum Physical Connections: 2
Maximum Distance: 13,000 Miles
Transmission Media: Leased Lines
Access Method: Centralized Master/Slave Polling
Protocols Supported: Asynchronous, Synchronous, Ascii
Network Compatibility: ICL System
Interfaces Supported: RS-232C
Advanced Functions: Security/Encryption, Diagnostics, Performance Analysis
Price:
Purchase: $1,500
Average Monthly Maintenance: $75
Distribution Method: End user
Number Installed to Date: Over 100
Date First Installed: December 1980
(See Vendor Profile Page V-10)

THE DESTEK GROUP
DESNET
Topology: Bus (Linear)
Network Type: Fiberoptics
Maximum Physical Connections: 350
Maximum Distance: 6,500 Feet
Transmission Media: Terrestrial Coaxial Cable, Fiber Optics
Access Method: Distributed CSMA/CD (Contention Type)
Protocols Supported: HDLC
Network Compatibility: IBM SNA
Interfaces Supported: RS-232C, IEEE 488, IBM PC
Advanced Functions: Diagnostics, Usage/Traffic Reporting
Price:
Purchase: $600 to $700
Distribution Method: End user
Number Installed to Date: Over 100
Date First Installed: November 1982
(See Vendor Profile Page V-10)

DIGITAL EQUIPMENT CORP.
DECNET
Topology: Bus (Linear), Star
Network Type: Both
Maximum Physical Connections: 1,023
Transmission Media: Terrestrial Coaxial Cable
Access Method: Centralized Master/Slave Polling, Distributed CSMA/CD (Contention Type)
Protocols Supported: Asynchronous, Hasp, Synchronous, X.25, Bisynchronous, SDLC, Ascii
Network Compatibility: IBM SNA, DEC DNA/Decnet, IBM BSC, Telenet, Tymnet
Interfaces Supported: RS-232C, RS-422/423, RS-449, CCITT
Advanced Functions: Diagnostics, Performance Analysis, Usage/Traffic Reporting
Distribution Method: End user
Date First Installed: 1976
(See Vendor Profile Page V-10)

DIGITAL MICROSYSTEMS, INC. (DMS)
HINET
Topology: Star, Ring
Network Type: Baseband
Maximum Physical Connections: 32
Transmission Media: Terrestrial Fiber Optics
Access Method: Master/Slave Polling (Centralized)
Protocols Supported: Uniscope
Network Compatibility: IBM BSC, Sperry DCA
Interfaces Supported: RS-232C, RS-444
Advanced Functions: Diagnostics, Performance Analysis, Usage/Traffic Reporting
Price:
Purchase: $950
Distribution Method: End user
(See Vendor Profile Page V-10)

FUJITSU AMERICA, INC.
OPTICAL DATA HIGHWAY
Topology: Ring
Network Type: Fiber Optic
Maximum Physical Connections: 64
Maximum Distance: 2 Miles
Transmission Media: Terrestrial Fiber Optics
Access Method: Centralized PBX (Switching Type)
Protocols Supported: Asynchronous, HASP, Synchronous, X.25, Bisynchronous, T1, SDLC, HDLC, Ascii
Interfaces Supported: RS-232C, CCITT
Advanced Functions: Diagnostics
Number Installed to Date: 1 to 10
Date First Installed: January 1984
(See Vendor Profile Page V-12)

GANDALF DATA, INC.
PACXNET
Topology: Star
Network Type: Baseband
Maximum Physical Connections: 0
Transmission Media: Terrestrial Twisted Wire, Coaxial Cable, Fiber Optics
Access Method: Centralized PBX (Switching Type)
Protocols Supported: Asynchronous, Synchronous, X.25, Bisynchronous, T-1, SDLC, HDLC, Ascii
Network Compatibility: IBM SNA, IBM BSC, Telenet, DDS, Tymnet
Interfaces Supported: RS-232C, RS-422/423, Mil. 188C, RS-449, CCITT, 20 mA
Advanced Functions: Diagnostics, Usage/Traffic Reporting
Price:
Purchase: $600 to $135
Average Monthly Maintenance: $300
Distribution Method: End user
Number Installed to Date: 25 to 30
Date First Installed: October 1982
(See Vendor Profile Page V-12)

GATEWAY COMMUNICATIONS, INC.
G/NET
Topology: Bus (Linear)
Network Type: Baseband
Maximum Physical Connections: 255
Maximum Distance: 7,000 Feet
Transmission Media: Terrestrial Coaxial Cable
Access Method: Distributed CSMA/CD (Contention Type)
Protocols Supported: Asynchronous, Hasp, Synchronous, X.25, Bisynchronous, SDLC, HDLC, Ascii
Network Compatibility: IBM SNA, IBM BSC, Primenet, Tymnet
Interfaces Supported: RS-232C, RS-422/423, V35

Advanced Functions: Diagnostics, Performance Analysis
Price:
Purchase: $595
Distribution Method: OEM
Number Installed to Date: Over 100
Date First Installed: September 1983
(See Vendor Profile Page V-12)

GENERAL ELECTRIC CO.
GEMLINK LDS-972A
Topology: Point to Point
Network Type: Microwave
Maximum Distance: 10 Miles
Transmission Media: Free Space Microwaves
Protocols Supported: Asynchronous
Interfaces Supported: RS-232C
Distribution Method: Third-party
Number Installed to Date: 1,000
Date First Installed: March 1982
(See Vendor Profile Page V-13)

GENERAL ELECTRIC CO.
GEMLINK LDS-992A
Network Type: Microwave
Maximum Distance: 10 Miles
Transmission Media: Free Space Microwaves
Protocols Supported: Synchronous
Network Compatibility: All Synchronous
Interfaces Supported: RS-232C, RS-422/423, RS-449
Distribution Method: Third-party
Number Installed to Date: 1,000
Date First Installed: March 1982

GENERAL ELECTRIC CO.
GEMLINK LSD-112A/122A
Topology: Point to Point
Network Type: Microwave
Maximum Distance: 7 Miles
Transmission Media: Free Space Microwaves
Protocols Supported: Synchronous, T-1
Network Compatibility: All Synchronous
Interfaces Supported: RS-422/423, DSX-1,1C
Distribution Method: Third-party
Number Installed to Date: 1,000
Date First Installed: March 1982

GENERAL ELECTRIC CO.
LSD-992A
Topology: Point to Point
Network Type: Microwave
Maximum Distance: 7 Miles
Transmission Media: Free Space Microwaves
Protocols Supported: Synchronous
Interfaces Supported: RS-232C, RS-422/423, RS-449, V.35
Distribution Method: Third-party
Number Installed to Date: 1,000
Date First Installed: March 1982

GOULD, INC.
MODWAY
Topology: Bus (tree)
Network Type: Both
Maximum Physical Connections: 250
Maximum Distance: 3 Miles
Transmission Media: Terrestrial Coaxial Cable
Access Method: Distributed Token Passing (Polling Types)
Protocols Supported: Asynchronous, Synchronous, X.25, Bisynchronous, T-1, SDLC, HDLC, Ascii, Modbus
Interfaces Supported: RS-232C, RS-449, DMA
Advanced Functions: Diagnostics, Performance Analysis, Usage/Traffic Reporting, Network Reconfiguration
Price:
Purchase: $1,500
Distribution Method: End user
Date First Installed: January 1983
(See Vendor Profile Page V-13)

HARRIS CORP.
HARRIS 9070 (BASEBAND)
Topology: Bus (Linear)
Network Type: Baseband
Maximum Physical Connections: 32
Maximum Distance: 5,000 Feet
Transmission Media: Terrestrial Coaxial Cable
Access Method: Distributed Token Passing (Polling Types)
Protocols Supported: Asynchronous, Synchronous, Bisynchronous, SDLC
Network Compatibility: IBM SNA
Interfaces Supported: RS-232C, RS-422/423, RS-449
Advanced Functions: Diagnostics, Performance Analysis
Price:
Purchase: $1,250
Distribution Method: End user
(See Vendor Profile Page V-14)

HARRIS CORP.
HARRIS 9070 (BROADBAND)
Topology: Bus (Linear)
Network Type: Broadband
Maximum Physical Connections: 1,000
Maximum Distance: 3 Miles
Transmission Media: Terrestrial Coaxial Cable
Access Method: Distributed Token Passing (Polling Types)
Protocols Supported: Asynchronous, Synchronous, Bisynchronous, SDLC
Network Compatibility: IBM SNA
Interfaces Supported: RS-232C, RS-422/423, RS-449
Advanced Functions: Diagnostics, Usage/Traffic Reporting
Price:
Purchase: $1,250
Distribution Method: End user

IDEAS, INC.
INET
Topology: Bus (tree)
Network Type: Broadband
Maximum Physical Connections: 1,000
Maximum Distance: 5 Miles
Transmission Media: Terrestrial Coaxial Cable
Access Method: Distributed CSMA/CD (Contention Type)
Protocols Supported: Asynchronous, Synchronous, X.25, Bisynchronous, SDLC, HDLC, Ascii
Network Compatibility: DEC DNA/Decnet, Honeywell DSE/DSA, Burroughs BNA, Sperry, DCA, HP DSN, Telenet, Tymnet
Interfaces Supported: RS-232C
Advanced Functions: Diagnostics, Performance Analysis, Usage/Traffic Reporting
Price:
Purchase: $500
Average Monthly Maintenance: $20
Distribution Method: End user
Date First Installed: July 1981
(See Vendor Profile Page V-15)

IDE ASSOCIATES, INC.
IDEANET/NPR-981 SPR-1N
Topology: Bus (Linear)
Network Type: Baseband
Maximum Physical Connections: 64,000
Maximum Distance: 2,000 Feet
Transmission Media: Terrestrial Coaxial Cable
Access Method: Distributed CSMA/CD (Contention Type)
Protocols Supported: SDLC, HDLC
Network Compatibility: PC-Net
Interfaces Supported: Coaxial Connections
Advanced Functions: Diagnostics
Distribution Method: Third-party
(See Vendor Profile Page V-15)

IDE ASSOCIATES, INC.
IDEASHARE/SPB-IB
Topology: Star
Network Type: RS-232
Maximum Physical Connections: 4
Maximum Distance: 200 Feet
Transmission Media: RS-232
Network Compatibility: None
Interfaces Supported: RS-232C
Advanced Functions: Diagnostics
Distribution Method: Third-party
Date First Installed: December 1983

INFOLINK
SYSTEM 9000
Topology: Multidrop
Network Type: Baseband
Maximum Distance: 15,000 Feet
Transmission Media: Terrestrial Twisted Wire
Access Method: Distributed Token Passing (Polling Types)
Protocols Supported: Asynchronous, Synchronous, SDLC
Network Compatibility: IBM SNA, DEC DNA/Decnet, IBM BSC, Honeywell DSE/DSA, Burroughs BNA, Primenet, Sperry DCA, DDS
Interfaces Supported: RS-232C, Teletype
Advanced Functions: Diagnostics, Performance Analysis, Usage/Traffic Reporting
Price:
Lease: $60 to $180
Purchase: $2,000 to $4,000
Average Monthly Maintenance: $30
Distribution Method: End user
(See Vendor Profile Page V-15)

INTECOM, INC.
LANMARK
Topology: Star
Network Type: Baseband
Maximum Physical Connections: 32
Maximum Distance: 54,000 Feet
Transmission Media: Terrestrial Twisted Wire, Fiber Optics
Access Method: Centralized PBX (Switching Type)
Network Compatibility: IBM SNA, Ethernet
Interfaces Supported: IEEE 802
Advanced Functions: Diagnostics, Performance Analysis, Usage/Traffic Reporting
Price:
Purchase: $500 to $800
Distribution Method: End user
(See Vendor Profile Page V-16)

INTERACTIVE SYSTEMS/3M
VIDEODATA LAN/1
Topology: Bus (tree)
Network Type: Broadband
Maximum Physical Connections: 256
Maximum Distance: 14 Miles
Transmission Media: Terrestrial Coaxial Cable
Access Method: Distributed Token Passing (Polling Types)
Protocols Supported: Asynchronous, Hasp, Ascii
Network Compatibility: IBM SNA, IBM BSC, Sperry DCA
Interfaces Supported: RS-232C
Advanced Functions: Diagnostics, Performance Analysis
Price:
Lease: $15 to $25
Purchase: $400 to $600
Distribution Method: End user
Number Installed to Date: 1 to 10
Date First Installed: August 1983
(See Vendor Profile Page V-16)

INTERLAN, INC.
INTERLAN NET/PLUS
Topology: Bus (Linear)
Network Type: Baseband
Maximum Physical Connections: 1,024
Maximum Distance: 2 Miles
Transmission Media: Terrestrial Coaxial Cable
Access Method: Distributed CSMA/CD (Contention Type)
Protocols Supported: Asynchronous, Ascii
Network Compatibility: DEC DNA/Decnet, XNS (Xerox), Telenet, Tymnet
Interfaces Supported: RS-232C
Advanced Functions: Diagnostics, Performance Analysis, Usage/Traffic Reporting
Price:
Purchase: $400
Distribution Method: End user
Number Installed to Date: Over 100
Date First Installed: September 1983
(See Vendor Profile Page V-16)

INTER-LINK
STATIONMATE
Topology: Bus (Linear)
Network Type: Baseband
Maximum Physical Connections: 64
Maximum Distance: 10,000 Feet
Transmission Media: Terrestrial Twisted Wire

Access Method: Distributed CSMA/CD (Contention Type)
Protocols Supported: Asynchronous, Ascii
Network Compatibility: Telenet, Tymnet, Uninet Compuserve
Interfaces Supported: RS-232C, CCITT.
Advanced Functions: Diagnostics, Usage/Traffic Reporting, Password Protection
Price:
Purchase: $1,450
Average Monthly Maintenance: $15
Distribution Method: Third-party
Number Installed to Date: 1 to 10
Date First Installed: November 1983
(See Vendor Profile Page V-16)

INTERGAL SYSTEMS, INC.
GE NET
Topology: Bus (Linear)
Network Type: Broadband
Maximum Physical Connections: 1,000
Maximum Distance: 3 Miles
Transmission Media: Terrestrial Coaxial Cable
Access Method: Distributed CSMA/CD (Contention Type)
Protocols Supported: Asynchronous, HDLC, Ascii, CCM
Network Compatibility: DEC DNA/Decnet, DDS
Interfaces Supported: RS-232C
Advanced Functions: Diagnostics, Performance Analysis, Usage/Traffic Reporting
Price:
Purchase: $900 to $1,000
Distribution Method: End user
Number Installed to Date: 25 to 50
Date First Installed: December 1982
(See Vendor Profile Page V-17)

ITT TELECOM PRODUCTS, INC.
MULTITENENT
Network Type: Baseband
Access Method: Centralized PBX (Switching Type)
Protocols Supported: Asynchronous, Synchronous, T-1, Ascii
Network Compatibility: DEC DNA/Decnet
Interfaces Supported: RS-232C
Advanced Functions: Diagnostics, Usage/Traffic Reporting
Distribution Method: End user
Number Installed to Date: Over 100
Date First Installed: 1980
(See Vendor Profile Page V-17)

JG SYSTEMS
JCS A-10
Topology: Bus (Linear)
Network Type: Broadband
Maximum Distance: 600 Feet
Access Method: Centralized Master/Slave Polling
Protocols Supported: Synchronous
Network Compatibility: IBM SNA, IBM BSC
Interfaces Supported: RS-232C, Centronics
Advanced Functions: Security/Encryption, Diagnostics, Usage/Traffic Reporting
Price:
Purchase: $495
Average Monthly Maintenance: $150
Distribution Method: OEM, Third-party
Number Installed to Date: 2,000
Date First Installed: May 1982
(See Vendor Profile Page V-17)

LOGICA, INC.
POLYNET
Topology: Ring
Network Type: Baseband
Maximum Distance: 2 Miles
Transmission Media: Terrestrial Twisted Wire, Fiber Optics
Access Method: DMA
Protocols Supported: Asynchronous, Ascii
Interfaces Supported: RS-232C, DEC Unibus
Advanced Functions: Built-In Error Correction
Price:
Purchase: $1,400 to $4,900
Distribution Method: Third-party
Number Installed to Date: 1 to 10
Date First Installed: January 1984
(See Vendor Profile Page V-18)

LYNCH COMMUNICATION SYSTEMS, INC.
VOICE PLUS DATA SUBSCRIBER CARRIER
Topology: Point to Point
Network Type: FSK
Maximum Physical Connections: 1
Transmission Media: Terrestrial Twisted Wire
Protocols Supported: Asynchronous, Hasp, Synchronous, X.25, Bisynchronous, T-1, SDLC, HDLC, Ascii
Interfaces Supported: 4 Wire
Advanced Functions: Diagnostics
Price:
Purchase: $203 to $256
Distribution Method: End user
Number Installed to Date: 25 to 50
(See Vendor Profile Page V-18)

METAPATH, INC.
ROBIN DESKTOP DATA SWITCH
Topology: Bus (Linear)
Network Type: Baseband
Maximum Physical Connections: 225
Maximum Distance: 5,000 Feet
Transmission Media: Terrestrial Coaxial Cable
Access Method: Absent Token
Protocols Supported: Asynchronous, Ascii
Network Compatibility: IBM SNA, IBM BSC, XNS (Xerox), Telenet, DDS, Tymnet
Interfaces Supported: RS-232C, Centronics
Advanced Functions: Security/Encryption, Diagnostics, Performance Analysis, Usage/Traffic Reporting
Price:
Purchase: $400
Distribution Method: OEM, Third-party
Number Installed to Date: 50 to 100
(See Vendor Profile Page V-19)

MICOM SYSTEMS, INC.
INSTANET
Topology: Star
Network Type: TDM
Transmission Media: Terrestrial Twisted Wire, Free Space Microwave, Laser
Access Method: Centralized PBX (Switching Type)
Protocols Supported: Asynchronous, X.25, T-1, Ascii
Network Compatibility: Telenet, Tymnet
Interfaces Supported: RS-232C, RS-422/423
Advanced Functions: Diagnostics, Usage/Traffic Reporting
Price:
Purchase: $100 to $250
Average Monthly Maintenance: $400
Distribution Method: End user
Number Installed to Date: More Than 100
Date First Installed: September 1979
(See Vendor Profile Page V-19)

MODULAR COMPUTER SYSTEMS, INC. (MODCOMP)
MAXNET
Topology: Bus (tree)
Network Type: Baseband
Maximum Physical Connections: 255
Maximum Distance: 600 Miles
Transmission Media: Terrestrial Twisted Wire, Coaxial Cable, Ribbon/Parallel Wire, Fiber Optics; 4 Wire
Access Method: Maxnet
Protocols Supported: Maxnet Proprietary
Interfaces Supported: RS-232C, V.25, WE301
Advanced Functions: Diagnostics, Usage/Traffic Reporting
Price:
Purchase: $3,500 to $30,000
Distribution Method: OEM
Number Installed to Date: Over 100
Date First Installed: September 1974
(See Vendor Profile Page V-20)

NBA, INC.
NBI NET
Topology: Bus (Linear)
Network Type: Baseband
Maximum Physical Connections: 500
Maximum Distance: 6,000 Feet
Transmission Media: Terrestrial Coaxial Cable
Access Method: Distributed CSMA/CD (Contention Type)
Protocols Supported: Asynchronous, Bisynchronous
Network Compatibility: IBM SNA, IBM BSC
Interfaces Supported: RS-232C, IEEE 802.3
Advanced Functions: Diagnostics, Usage/Traffic Reporting
Price:
Purchase: $900
Distribution Method: Third-party
Date First Installed: June 1984
(See Vendor Profile Page V-21)

NCR CORP.
MIRLAN (MID RANGE LAN)
Topology: Bus (tree)
Network Type: Baseband
Maximum Distance: 12,000 Feet
Access Method: Distributed CSMA/CD (Contention Type)
Distribution Method: End user
(See Vendor Profile Page V-21)

NCR CORP.
NCR DECISION NET
Topology: Bus (Linear)
Network Type: Baseband
Maximum Physical Connections: 64
Maximum Distance: 4,000 Feet
Transmission Media: Terrestrial Twisted Wire
Access Method: Distributed CSMA/CD (Contention Type)
Protocols Supported: Omninet
Network Compatibility: Omninet
Advanced Functions: Diagnostics, Usage/Traffic Reporting, File Sharing
Price:
Purchase: $500
Distribution Method: End user
Date First Installed: October 1983

NESTAR SYSTEMS, INC.
PLAN SERIES
Topology: Star
Network Type: Baseband
Maximum Physical Connections: 255
Maximum Distance: 4 Miles
Transmission Media: Terrestrial Coaxial Cable
Access Method: Distributed Token Passing (Polling Types)
Protocols Supported: Asynchronous, Hasp, Synchronous, Bisynchronous, T-1, SDLC, HDLC, Ascii, Spreadsheets
Network Compatibility: IBM SNA, IBM BSC, XNS (Xerox), Arc Link, Telenet, Tymnet
Interfaces Supported: RS-232C, CCITT
Advanced Functions: Security/Encryption, Diagnostics, Usage/Traffic Reporting
Price:
Purchase: $2,000 to $100,000
Distribution Method: End user
Number Installed to Date: Over 100
Date First Installed: January 1982
(See Vendor Profile Page V-21)

NETWORK PRODUCTS, INC.
LOCAL MUX
Topology: Point to Point
Network Type: Baseband
Maximum Physical Connections: 1
Maximum Distance: 10,000 Feet
Transmission Media: Terrestrial Twisted Wire
Access Method: Direct
Protocols Supported: Asynchronous, Hasp, Synchronous, X.25, Bisynchronous, SDLC, HDLC, Ascii
Interfaces Supported: RS-232C
Advanced Functions: Diagnostics
Price:
Purchase: $106
Average Monthly Maintenance: $13
Distribution Method: End user

Number Installed to Date: Over 100
Date First Installed: April 1983
(See Vendor Profile Page V-21)

NETWORK SYSTEM CORP.
HYPER BUS
Topology: Bus (tree)
Network Type: Baseband
Maximum Physical Connections: 200
Maximum Distance: 4,000 Feet
Transmission Media: Terrestrial Coaxial Cable; Free Space Infrared Light, Microwaves, Laser; Satellite
Access Method: Virtual Time-sharing
Protocols Supported: Asynchronous, Synchronous, Bisynchronous, T-1, SDLC, Ascii
Network Compatibility: IBM SNA, IBM BSC, DDS
Interfaces Supported: RS-232C, IEEE 488, RS-422/423, MIL 188C, RS-449, CCITT, 306
Advanced Functions: Diagnostics, Usage/Traffic Reporting
Price:
Purchase: $8,000
Distribution Method: End user
Number Installed to Date: Over 100
Date First Installed: 1982
(See Vendor Profile Page V-21)

NETWORK SYSTEM CORP.
HYPER CHANNEL
Topology: Bus (Linear)
Network Type: Baseband
Maximum Physical Connections: 64
Maximum Distance: 1,200 Feet
Transmission Media: Terrestrial Coaxial Cable; Free Space Infrared Light, Microwaves, Laser; Satellite
Access Method: Distributed CSMA/CD (Contention Type)
Protocols Supported: Hasp, Synchronous, Bisynchronous, T-1, SDLC, HDLC, Ascii, T-2, T-3
Network Compatibility: IBM SNA, IBM BSC, Burroughs BNA, DDS
Interfaces Supported: RS-232C, IEEE 488, RS-422/423, MIL 188C, RS-449, CCITT, 306
Advanced Functions: Security/Encryption, Diagnostics, Usage/Traffic Reporting
Price:
Purchase: $40,000
Distribution Method: End user
Number Installed to Date: Over 100
Date First Installed: 1974

NORTHERN TELECOM, INC.
Topology: Ring
Network Type: Baseband
Maximum Physical Connections: 20
Maximum Distance: 5,000 Feet
Transmission Media: Terrestrial Coaxial Cable
Access Method: Distributed Token Passing (Polling Types)
Protocols Supported: Asynchronous, Hasp, Synchronous, Bisynchronous, SDLC, Ascii
Network Compatibility: IBM SNA, IBM BSC, Burroughs BNA, Sperry DCA, Telenet, Tymnet
Interfaces Supported: RS-232C
Advanced Functions: Diagnostics
Price:
Purchase: $1,800 to $1,800
Distribution Method: End user
Date First Installed: 1977
(See Vendor Profile Page V-22)

NOVELL, INC.
NETWARE-S
Topology: Star
Network Type: Baseband
Maximum Physical Connections: 24
Maximum Distance: 3,000 Feet
Transmission Media: Terrestrial Twisted Wire
Access Method: Proprietary
Protocols Supported: Asynchronous, X.25, Ascii
Network Compatibility: Arc Link, DDS
Interfaces Supported: RS-232C, RS-422/423, MIL 188C
Advanced Functions: Security/Encryption, Diagnostics, Performance Analysis, Usage/Traffic Reporting
Price:
Purchase: $250
Distribution Method: OEM, Third-party
Number Installed to Date: 600
Date First Installed: December 1981
(See Vendor Profile Page V-22)

NOVELL, INC.
NETWARE-X
Topology: Bus (Linear)
Network Type: Baseband
Maximum Physical Connections: 250
Maximum Distance: 4,000 Feet
Transmission Media: Terrestrial Coaxial Cable
Access Method: Novel Proprietary
Protocols Supported: Asynchronous, X.25, Ascii
Network Compatibility: Arc Link, Omninet
Interfaces Supported: RS-232C, RS-422/423, MIL 188C
Advanced Functions: Security/Encryption, Diagnostics, Performance Analysis, Usage/Traffic Reporting
Price:
Purchase: $695
Average Monthly Maintenance: $35
Distribution Method: Third-party
Date First Installed: April 1983

OMNIDATA
OMNINET
Topology: Bus (Linear and Tree
Network Type: Baseband
Maximum Physical Connections: 64
Maximum Distance: 4,000 Feet
Transmission Media: Terrestrial Twisted Wire
Access Method: Distributed CSMA/CD (Contention Type)
Network Compatibility: SDLC
Interfaces Supported: RS-422/423
Advanced Functions: Security/Encryption, Diagnostics, Usage/Traffic Reporting
Price:
Purchase: $500 to $1,000
Distribution Method: OEM, Third-party
Number Installed to Date: 50 to 100
Date First Installed: October 1982
(See Vendor Profile Page V-22)

ORCHID TECHNOLOGY, INC.
PC NET
Topology: Distributed Bus
Network Type: Baseband
Maximum Physical Connections: 256
Maximum Distance: 7,000 Feet
Transmission Media: Terrestrial Coaxial Cable
Access Method: Distributed CSMA/CD (Contention Type)
Protocols Supported: SDLC
Network Compatibility: IBM SNA
Interfaces Supported: RS-232C
Advanced Functions: Performance Analysis, Usage/Traffic Reporting, Executon
Price:
Purchase: $695
Distribution Method: End user
Number Installed to Date: Over 100
Date First Installed: October 1982
(See Vendor Profile Page V-22)

PERCOM DATA CORP.
PERCOM NET
Topology: Ring
Network Type: Baseband
Maximum Physical Connections: 255
Maximum Distance: 25 Miles
Transmission Media: Terrestrial Twisted Wire
Access Method: Distributed Token Passing (Polling Types)
Protocols Supported: Western Digital
Network Compatibility: Western Digital 2840
Interfaces Supported: RS-422/423
Advanced Functions: Security/Encryption
Price:
Purchase: $595 to $1,700
Distribution Method: Third-party
Number Installed to Date: 1 to 10
Date First Installed: November 1983
(See Vendor Profile Page V-23)

PERIPHERAL TECHNOLOGY, INC.
PNC
Topology: Star
Network Type: Baseband
Maximum Physical Connections: 5
Maximum Distance: 8,000 Feet
Transmission Media: Twisted Wire
Access Method: Centralized Master/Slave Polling
Protocols Supported: Asynchronous, Synchronous, Bisynchronous, Ascii
Network Compatibility: IBM BSC
Interfaces Supported: RS-232C, RS-422
Advanced Functions: Security/Encryption, Diagnostics
Price:
Purchase: $600
Distribution Method: End user
Number Installed to Date: 10 to 25
Date First Installed: November 1983
(See Vendor Profile Page V-23)

PERQ SYSTEMS
ETHERNET
Topology: Bus (tree)
Network Type: Broadband
Maximum Physical Connections: 1,024
Maximum Distance: 2 Miles
Transmission Media: Terrestrial Coaxial Cable
Access Method: Distributed CSMA/CD (Contention Type)
Protocols Supported: Asynchronous, Synchronous, X.25
Network Compatibility: DEC DNA/Decnet
Interfaces Supported: RS-232C, IEEE 488, GPIB-1
Advanced Functions: Security/Encryption, Diagnostics
Price:
Lease: $1,800
Distribution Method: OEM
Number Installed to Date: Over 100
Date First Installed: 1982
(See Vendor Profile Page V-23)

PHOENIX DIGITAL CORP.
OPTONET
Topology: Ring, Single/Multiple Ring
Network Type: Baseband
Maximum Physical Connections: 256
Maximum Distance: 2 Miles
Transmission Media: Terrestrial Twisted Wire, Fiber Optics; Free Space Infrared Light, Laser
Access Method: Centralized Master/Slave Polling, Distributed Token Passing (Polling Types)
Protocols Supported: Asynchronous, Hasp, Synchronous, X.25, Bisynchronous, SDLC, HDLC, Ascii, DDCMP
Network Compatibility: IBM SNA, DEC DNA/Decnet, Honeywell DSE/DSA, Modbus, Asynchronous/Bisynchronous Data Highway
Interfaces Supported: RS-232C, IEEE 488, RS-422/423, RS-449, CCITT
Advanced Functions: Security/Encryption, Diagnostics, Performance Analysis, Usage/Traffic Reporting, Network Monitor
Price:
Purchase: $100,000
Distribution Method: End user
Number Installed to Date: 50 to 100
Date First Installed: August 1980
(See Vendor Profile Page V-23)

PRAGMATRONICS, INC.
TBNET
Topology: Bus (Linear)
Network Type: Baseband
Maximum Physical Connections: 2,000
Maximum Distance: 5 Miles
Transmission Media: Terrestrial Coaxial Cable; Free Space Infrared Light
Access Method: Distributed CSMA/CD (Contention Type)
Protocols Supported: Asynchronous, Synchronous, HDLC, Ascii
Network Compatibility: Transport
Interfaces Supported: RS-232C, RS-422/423

Advanced Functions: Diagnostics, Performance Analysis, Usage/Traffic Reporting
Prices:
Lease: $25 to $33
Purchase: $600 to $800
Distribution Method: End user
Number Installed to Date: 1 to 10
Date First Installed: 1979
(See Vendor Profile Page V-24)

PRIME COMPUTER, INC.
RINGNET
Topology: Ring
Network Type: Baseband
Access Method: Distributed Token Passing (Polling Types)
Protocols Supported: Asynchronous, HASP, Synchronous, X.25, Bisynchronous, SDLC, HDLC, Ascii
Network Compatibility: IBM BSC, Honeywell DSE/DSA, Primenet, Sperry DCA, Telenet, Tymnet
Interfaces Supported: RS-232C, CCITT
Price:
Purchase: $5,000
Average Monthly Maintenance: $28
Distribution Method: End user
(See Vendor Profile Page V-24)

PROLINK CORP.
PROLOOP NETWORK
Topology: Ring
Network Type: Baseband
Maximum Physical Connections: 82
Maximum Distance: 82,000 Feet
Transmission Media: Terrestrial Coaxial Cable
Access Method: Slotted Bus
Protocols Supported: Synchronous, Bisynchronous, SDLC, Ascii, ISO Equivalent
Network Compatibility: IBM SNA, IBM BSC, IBM 3101, ST 100
Interfaces Supported: RS-232C
Advanced Functions: Security/Encryption, Diagnostics, Performance Analysis, Usage/Traffic Reporting, System Customization
Distribution Method: End user
Number Installed to Date: 10 to 25
Date First Installed: October 1981
(See Vendor Profile Page V-24)

PROTECH ASSOCIATES, INC.
PRONET
Topology: Star
Network Type: Baseband, Broadband and Fiber Optic
Maximum Physical Connections: 255
Maximum Distance: 620 Miles
Transmission Media: Terrestrial Twisted Wire, Coaxial Cable, Fiber Optics; Free Space Infrared Light
Access Method: Distributed Token Passing (Polling Types)
Protocols Supported: Asynchronous, Hasp, Synchronous, X.25, Bisynchronous, HDLC
Network Compatibility: IBM SNA, DEC DNA/Decnet, HP
Interfaces Supported: RS-232C, IEEE 488
Advanced Functions: Security/Encryption, Diagnostics, Performance Analysis, Usage/Traffic Reporting
Prices:
Purchase: $800 to $2,800
Distribution Method: End user
Number Installed to Date: 50 to 100
Date First Installed: June 1981
(See Vendor Profile Page V-24)

RACAL-MILGO, INC.
PLANET
Topology: Ring
Network Type: Baseband
Maximum Physical Connections: 250
Maximum Distance: 7 Miles
Transmission Media: Terrestrial Coaxial Cable
Access Method: Distributed Token Passing (Polling Types)
Protocols Supported: Asynchronous, Hasp, Synchronous, X.25, Bisynchronous, T-1, SDLC, HDLC, Ascii
Interfaces Supported: RS-232C
Advanced Functions: Security/Encryption, Diagnostics, Performance Analysis, Usage/Traffic Reporting, On-line Inventory
Prices:
Lease: $25 to $60
Price:
Purchase: $800 to $900
Distribution Method: End user
Number Installed to Date: 50 to 100
Date First Installed: March 1983
(See Vendor Profile Page V-24)

RAYTHEON CO.
RAYNET IV
Topology: Bus (Linear)
Network Type: Broadband
Maximum Physical Connections: 31
Transmission Media: Terrestrial Coaxial Cable, Ribbon/Parallel Wire; Satellite
Access Method: Centralized Master/Slave Polling
Protocols Supported: Bisynchronous, ALC
Network Compatibility: IBM BSC, Sperry DCA, Telenet, Tymnet
Interfaces Supported: RS-232C, MIL 188C
Advanced Functions: Security/Encryption, Diagnostics, Performance Analysis, Usage/Traffic Reporting, Message Switching
Price:
Lease: $5,000
Average Monthly Maintenance: $2,500
Distribution Method: End user
Number Installed to Date: 1 to 10
Date First Installed: 1982
(See Vendor Profile Page V-25)

SCIENTIFIC DATA SYSTEMS, INC.
SDS NETWORK
Topology: Ethernet Bus
Network Type: Broadband
Maximum Physical Connections: 254
Transmission Media: Terrestrial Coaxial Cable
Access Method: Distributed CSMA/CD (Contention Type)
Protocols Supported: Asynchronous, Synchronous, HDLC, Ascii
Interfaces Supported: RS-232C
Price:
Purchase: $6,000 to $8,000
Average Monthly Maintenance: $90
Distribution Method: Third-party
Number Installed to Date: 25 to 50
Date First Installed: November 1983
(See Vendor Profile Page V-26)

STARBARD DATA CORP.
STANDARD NET
Topology: Bus (Linear)
Network Type: Baseband
Maximum Physical Connections: 255
Maximum Distance: 4,000 Feet
Transmission Media: Terrestrial Coaxial Cable, Fiber Optics; Free Space Microwaves, Laser
Access Method: Distributed CSMA/CD (Contention Type) , CSMA/CA
Network Compatibility: IBM SNA, DEC DNA/Decnet, IBM BSC, Honeywell DSE/DSA, Burroughs BNA, Primenet, Sperry DCA, XNS (Xerox), HP DSN, Arc Link, Omninet, Telenet, DDS, Tymnet
Interfaces Supported: RS-232C, IEEE 488, IEEE 802
Advanced Functions: Security/Encryption, Diagnostics, Usage/Traffic Reporting
Price:
Purchase: $995
Distribution Method: Third-party
Number Installed to Date: 10 to 25
Date First Installed: October 1983
(See Vendor Profile Page V-26)

STEARN COMPUTER SYSTEMS
MICRONETWORK
Topology: Star
Network Type: Baseband
Maximum Physical Connections: 32
Maximum Distance: 6,000 Feet
Transmission Media: Terrestrial Fiber Optics
Protocols Supported: SDLC
Interfaces Supported: RS-422/423
Advanced Functions: Diagnostics, Usage/Traffic Reporting
Price:
Purchase: $4,000 to $6,000
Distribution Method: Third-party
(See Vendor Profile Page V-26)

STRATUS COMPUTER, INC.
STRATALINK
Topology: Ring
Network Type: Baseband
Maximum Physical Connections: 32
Maximum Distance: 2,500 Miles
Transmission Media: Terrestrial Coaxial Cable
Access Method: Proprietary X.25-Based
Protocols Supported: Asynchronous, Synchronous, X.25, Bisynchronous, SDLC, HDLC, Ascii, X.29 FTPS
Network Compatibility: IBM SNA, IBM BSC
Interfaces Supported: RS-232C, RS-422/423, Bus Interface
Advanced Functions: Security/Encryption, Diagnostics, Performance Analysis, Usage/Traffic Reporting
Distribution Method: End user
Number Installed to Date: 25 to 50
Date First Installed: November 1981
(See Vendor Profile Page V-26)

SYNTREX, INC.
SYNNET
Topology: Bus (tree)
Network Type: Baseband
Maximum Physical Connections: 420
Maximum Distance: 1,700 Feet
Transmission Media: Terrestrial Coaxial Cable
Access Method: Distributed CSMA/CD (Contention Type)
Protocols Supported: Asynchronous, Synchronous, Bisynchronous, SDLC, Ascii, Syntrex Proprietary
Network Compatibility: Syntrex Proprietary
Interfaces Supported: RS-232C, Syntrex Proprietary
Advanced Functions: Diagnostics, Usage/Traffic Reporting
Price:
Purchase: $650
Average Monthly Maintenance: $60
Distribution Method: End user, Third-party
Number Installed to Date: 10 to 25
Date First Installed: 1983
(See Vendor Profile Page V-26)

SYTEK, INC.
LOCAL NET
Topology: Bus (tree)
Network Type: Broadband
Maximum Physical Connections: 24,000
Maximum Distance: 70 Miles
Transmission Media: Terrestrial Coaxial Cable
Access Method: Distributed CSMA/CD (Contention Type)
Protocols Supported: Asynchronous, Synchronous, X.25, Bisynchronous, Ascii
Network Compatibility: IBM BSC, XNS (Xerox), HP DSN, Telenet, Tymnet, X.25
Interfaces Supported: RS-232C
Advanced Functions: Security/Encryption, Diagnostics, Performance Analysis, Usage/Traffic Reporting, Name-Serving, Access Control
Price:
Purchase: $345 to $545
Average Monthly Maintenance: $5
Distribution Method: End user
Number Installed to Date: Over 100
Date First Installed: January 1981
(See Vendor Profile Page V-29)

TANDEM COMPUTERS, INC.
NONSTOP II
Topology: Double Ring
Network Type: Fiber Optics
Maximum Physical Connections: 255
Transmission Media: Fiber Optics

Access Method: EXP (Proprietary) Fox
Protocols Supported:
Asynchronous, X.25, HDLC
Average Monthly Maintenance: $500
Distribution Method: End user
Number Installed to Date: 25 to 50
(See Vendor Profile Page V-29)

TANDEM COMPUTERS, INC.
NONSTOP TXP
Topology: Double Ring
Network Type: Fiber Optics
Maximum Physical Connections: 255
Maximum Distance: 3,000 Feet
Transmission Media: Terrestrial Fiber Optics
Access Method: Expand (TM), Fox
Protocols Supported:
Asynchronous, X.25, HDLC
Average Monthly Maintenance: $500
Distribution Method: End user
Number Installed to Date: 25 to 50

TANDEM COMPUTERS, INC.
NONSTOP 1
Topology: Double Ring
Network Type: Fiber Optics
Maximum Physical Connections: 255
Transmission Media: Fiber Optics
Access Method: Expand (TM), Fox
Protocols Supported:
Asynchronous, X.25, HDLC
Average Monthly Maintenance: $500
Distribution Method: End user
Number Installed to Date: 25 to 50

TECHAR, INC.
ELAN
Topology: Bus (Linear)
Network Type: Baseband
Maximum Physical Connections: 1,024
Maximum Distance: 8,000 Feet
Transmission Media: Terrestrial Coaxial Cable
Access Method: Distributed CSMA/CD (Contention Type)
Protocols Supported:
Asynchronous, Ascii
Network Compatibility: Telenet, Tymnet
Interfaces Supported: RS-232C, CCITT
Advanced Functions: Security/Encryption, Diagnostics, Performance Analysis, Usage/Traffic Reporting
Price:
Purchase: $1,695 to $3,395
Average Monthly Maintenance: $10
Distribution Method: Third-party
Number Installed to Date: 1 to 10
Date First Installed: July 1983
(See Vendor Profile Page V-29)

TELTONE CORP.
DCS-2
Topology: Star
Network Type: Broadband
Maximum Distance: 18,000 Feet
Transmission Media: Terrestrial Twisted Wire; Free Space Microwave; T-1
Access Method: Centralized PBX (Switching Type)
Protocols Supported:
Asynchronous, X.25, Bisynchronous, T-1, SDLC, HDLC, Ascii
Interfaces Supported: RS-232C
Advanced Functions: Diagnostics
Price:
Purchase: $450
Distribution Method: End user
Number Installed to Date: Over 100
Date First Installed: 1979
(See Vendor Profile Page V-30)

TRANTOR SYSTEMS LTD.
WEB
Topology: Star
Network Type: Broadband
Maximum Physical Connections: 4
Maximum Distance: 100 Feet
Transmission Media: Terrestrial Twisted Wire, Ribbon/Parallel Wire
Access Method: Centralized PBX (Switching Type)
Protocols Supported: Asynchronous
Network Compatibility: IBM SNA, Burroughs BNA, XNS (Xerox)
Interfaces Supported: RS-232C, IEEE 488
Advanced Functions: Security/Encryption, Diagnostics, Usage/Traffic Reporting
Average Monthly Maintenance: $10
Distribution Method: Third-party
Number Installed to Date: 50 to 100
Date First Installed: June 1983
(See Vendor Profile Page V-31)

UNGERMANN-BASS, INC.
NET/ONE BASEBAND NETWORK INTERFACE UNIT
Topology: Bus (Linear)
Network Type: Baseband
Maximum Physical Connections: 1,024
Maximum Distance: 9,184 Feet
Transmission Media: Terrestrial Coaxial Cable, Free Space Infrared Light
Access Method: Distributed CSMA/CD (Contention Type)
Protocols Supported:
Asynchronous, Synchronous, Bisynchronous, SDLC, HDLC, Ascii
Network Compatibility: IBM SNA, DEC DNA/Decnet, IBM BSC, Honeywell DSE/DSA, Burroughs BNA, Sperry DCA, XNS (Xerox), Telenet
Interfaces Supported: RS-232C, IEEE 488, CCITT
Advanced Functions: Performance Analysis, Usage/Traffic Reporting, Configuration Control
Price:
Lease: $500
Distribution Method: End user, OEM, Third-party
Number Installed to Date: 3,300
Date First Installed: July 1980
(See Vendor Profile Page V-32)

UNGERMANN-BASS, INC.
NET/ONE BROADBAND NETWORK INTERFACE UNIT
Topology: Bus (tree)
Network Type: Broadband
Maximum Physical Connections: 1,500
Maximum Distance: 10 Miles
Transmission Media: Terrestrial Coaxial Cable
Access Method: CSMA
Protocols Supported:
Asynchronous, Synchronous, Bisynchronous, SDLC, HDLC, Ascii
Network Compatibility: IBM SNA, DEC DNA/Decnet, IBM BSC, Honeywell DSE/DSA, Burroughs BNA, Sperry DCA, XNS (Xerox), Telenet
Interfaces Supported: RS-232C, IEEE 488, CCITT, Drll W-8
Advanced Functions: Performance Analysis, Configuration Control
Price:
Lease: $525
Distribution Method: End user, OEM, Third-party
Number Installed to Date: Over 100
Date First Installed: July 1982

UNGERMANN-BASS, INC.
NET/ONE FIBER OPTICS NETWORK INTERFACE UNIT
Topology: Star
Network Type: Baseband
Maximum Physical Connections: 1,024
Maximum Distance: 9,184 Feet
Transmission Media: Fiber Optics
Access Method: Distributed CSMA/CD (Contention Type)
Protocols Supported:
Asynchronous, Synchronous, Bisynchronous, SDLC, HDLC, Ascii, DDCMP
Network Compatibility: IBM SNA, DEC DNA/Decnet, IBM BSC, Honeywell DSE/DSA, Burroughs BNA, Sperry DCA, XNS (Xerox), Telenet
Interfaces Supported: RS-232C, IEEE 488, CCITT, Drll W-8
Advanced Functions: Performance Analysis, Usage/Traffic Reporting, Configuration Control
Price:
Lease: $620
Distribution Method: End user, OEM, Third-party

UNGERMANN-BASS, INC.
SERIES 600 PRODUCTS
Topology: Bus (tree)
Network Type: Broadband
Transmission Media: Terrestrial Coaxial Cable
Access Method: Modems
Protocols Supported:
Asynchronous, Synchronous
Interfaces Supported: RS-232C, CCITT
Distribution Method: End user, OEM, Third-party
Number Installed to Date: 8,100
Date First Installed: August 1977

WESTERN TELEMATIC, INC.
SS-6
Topology: Bus (tree)
Network Type: Baseband
Maximum Physical Connections: 8
Maximum Distance: 1,000 Feet
Transmission Media: Terrestrial Twisted Wire, Ribbon/Parallel Wire
Access Method: Distributed Token Passing (Polling Types)
Protocols Supported: Asynchronous
Interfaces Supported: RS-232C
Advanced Functions: Status Indicator
Price:
Purchase: $995
Distribution Method: End user, OEM, Third-party
Number Installed to Date: Over 100
Date First Installed: January 1983
(See Vendor Profile Page V-33)

WINDSOURCE, INC.
WINNET
Topology: Ring
Network Type: Broadband
Maximum Physical Connections: 432
Maximum Distance: 2,000 Feet
Transmission Media: Terrestrial Twisted Wire
Access Method: Distributed CSMA/CD (Contention Type)
Protocols Supported:
Asynchronous, Synchronous, Bisynchronous, Ascii
Network Compatibility: IBM SNA
Interfaces Supported: RS-232C, RS-449
Advanced Functions: Security/Encryption, Diagnostics, Usage/Traffic Reporting
Price:
Purchase: $100
Average Monthly Maintenance: $1
Distribution Method: End user
Number Installed to Date: Over 100
Date First Installed: November 1982
(See Vendor Profile Page V-33)

XEROX CORP.
ETHERNET
Topology: Bus (Linear and Tree)
Network Type: Baseband
Maximum Physical Connections: 1,024
Maximum Distance: 2 Miles
Transmission Media: Terrestrial Coaxial Cable
Access Method: Distributed CSMA/CD (Contention Type)
Protocols Supported:
Asynchronous, Synchronous, Bisynchronous
Network Compatibility: IBM BSC, XNS (Xerox)
Interfaces Supported: RS-232C, X.25
Advanced Functions: Diagnostics, Performance Analysis, Usage/Traffic Reporting
Price:
Purchase: $500 to $20,000
Distribution Method: Third-party
Number Installed to Date: Over 100
Date First Installed: 1981
(See Vendor Profile Page V-33)

XYPLEX, INC.
XYPLEX SYSTEM
Topology: Bus (Linear)
Network Type: Broadband
Maximum Physical Connections: 255
Maximum Distance: 8 Miles
Transmission Media: Terrestrial Coaxial Cable
Access Method: Distributed CSMA/CD (Contention Type)

Protocols Supported: Asynchronous
Interfaces Supported: RS-232C, RS-422/423, RS-449, CCITT
Advanced Functions: Diagnostics, Performance Analysis, Usage/Traffic Reporting
Price:
Purchase: $300
Distribution Method: End user
(See Vendor Profile Page V-33)

ZTEL, INC.
ZTEL LAN
Topology: Ring
Network Type: Baseband
Transmission Media: Terrestrial Twisted Wire, Coaxial Cable, Fiber Optics
Access Method: Distributed Token Passing (Polling Types)
Protocols Supported: Asynchronous, Hasp, Synchronous, X.25, Bisynchronous, T-1, SDLC, HDLC, Ascii
Network Compatibility: IBM SNA, DEC DNA/Decnet, IBM BSC, Honeywell DSE/DSA, Burroughs SNA, Primenet, Sperry DCA, XNS (Xerox), HP DSN, Arc Link, Omninet, Telenet, DDS, Tymnet
Interfaces Supported: RS-232C, RS-449, IEEE 802.5
Advanced Functions: Diagnostics, Performance Analysis, Usage/Traffic Reporting
Distribution Method: Third-party
(See Vendor Profile Page V-34)

3 COM CORP.
ETHERSERIES
Topology: Bus (tree)
Network Type: Baseband
Maximum Physical Connections: 1,024
Maximum Distance: 7,000 Feet
Transmission Media: Terrestrial Coaxial Cable, Fiber Optics
Access Method: Distributed CSMA/CD (Contention Type)
Protocols Supported: XNS
Network Compatibility: IBM SNA, XNS (Xerox)
Interfaces Supported: RS-232C, SNA, X.25
Advanced Functions: Diagnostics, Usage/Traffic Reporting
Price:
Purchase: $950
Distribution Method: Third-party
(See Vendor Profile Page V-34)

SOFTWARE

Index to Communications Software

This product category includes software products that are specifically designed to perform communications functions, including teleprocessing monitoring and terminal and network management. The index has been arranged alphabetically by vendor and contains information on the memory required to run the product, the price and the page on which the complete product listing can be found.

VENDOR	MODEL	MEMORY REQUIRED	PRICE	PAGE
A. B. Dick Co.	A B DICK COMPANY HASP	64.0K bytes	$418	C-21
	A B DICK COMPANY MAGNA SOFTWARE	64.0K bytes	$300	C-21
	A B DICK COMPANY BIS 3270TM	64.0K bytes	$400	C-21
	A B DICK COMPANY BIS 3780TM	64.0K bytes	$400	C-21
ABT Associates	DATA TRANS	48.0K bytes	$100	C-21
Access Telecommunications	ACCESS 34/36/38	N/A	N/A	C-21
Alden/Honeywell	6H	256.0K bytes	N/A	C-21
	6I	256.0K bytes	N/A	C-21
Advanced Computer Techniques	ACT NETWORK PROCESSOR	N/A	N/A	C-21
Advanced Information Management	AIM/FILE CONVERSION SYSTEM	N/A	N/A	C-21
Advanced Micro Techniques	INTELLIGENT TERMINAL - VERSION 1	48.0K bytes	$150	C-21
	MICROTLX - VERSION 1.02	48.0K bytes	$150	C-21
Advanced Software Products, Inc.	3101 EMULATOR	128.0K bytes	$300	C-21
Advanced Systems Concepts, Inc.	PRISM PROFESSIONAL INTER SYSTEM	512.0K bytes	$595	C-21
	REMOTE PRINTER SUPPORT	1.0M bytes	$1,500	C-21
Alphatronix, Inc.	BATCH EMULATOR 2780/3780/3741	16.0K bytes	N/A	C-21
Alpha Systems Ltd.	ALPHACOMM	64.0K bytes	$200	C-21
	NUCOMM	64.0K bytes	$100	C-21
Altergo Products Inc.	ALTERGO PRODUCTS SHADOW II	100.0K bytes	$20,000	C-21
The Alternate Source	TCOM	N/A	$29	C-22
	TRAKCESS	N/A	$29	C-22
	TRS-80 COMMUNICATION	32.0K bytes	$39	C-22
American Comp. & Elec. Corp.	HASP 900	25.0K bytes	$5,000	C-22
Applied Cybernetics, Inc.	FREEFORM/3000	N/A	N/A	C-22
	TERMINAL/3000	N/A	$2,500	C-22
Applied Data Research, Inc.	ADR/DATACOM/DC - RELEASE 4	N/A	$13,600 to $51,500	C-22
Applied Information Systems, Inc.	COMMUNICATION SYSTEM-VERSION 2.0	3.0K bytes	$4,400	C-23
Arbat Systems Ltd.	ARBAT SERIES 700 INTELEX SYSTEM	512.0K bytes	N/A	C-22
Ashton, Inc.	ELECTRONIC MESSAGE SYSTEM	64.0K bytes	$495	C-22
Atlas International, Inc.	MICRO/REMOTE 2780/3780 EMULATOR	24.0K bytes	$25,000	C-22
	MICRO/REMOTE 3270 EMULATOR	24.0K bytes	$25,000	C-22
Automated Business Centers	COMM-HANDLER	128.0K bytes	$295	C-22
Automated Professional Systems	APSTRAN	64.0K bytes	N/A	C-22
Automation Design, Inc.	THINKER-PC	N/A	N/A	C-22
Barr Systems, Inc.	BARR/HASP	128.0K bytes	$750	C-22
Basic Business Control Sys., Inc.	ELECTRONIC SCALE POLLING SYSTEM	128.0K bytes	N/A	C-22
	ELECTRONIC TIME CLOCK POLLING SYSTEM	128.0K bytes	N/A	C-22
Bass Based Associates, Inc.	VMDS	N/A	$15,000	C-22
Benson C. Stone & Associates	TRIMS	64.0K bytes	$20,000 to $35,000	C-23
Bonnenberg, McLeroy & Harrison	VIRTEX	1.0M bytes	$9,500	C-23
CAP Information Systems	LINEAR AND MATHEMATICAL PROGRAMMING SYSTEM	5.1M bytes	$12,000	C-23
	TRANSIT INFORMATION TRANSFER SERVICES	50.0K bytes	N/A	C-22
Carney Associates, Inc.	MSI/TELXON RECEIVE	64.0K bytes	$3,000	C-23
Century Analysis, Inc.	BOSS-3	256.0K bytes	$12,000	C-23
Chesni Systems, Inc.	ENVIRON/1	N/A	$59,400	C-23
Clickatwork	C-N-COMM MICRO/MAINFRAME COMMUNICATIONS	128.0K bytes	$400	C-23
Cobo Corp.	TELECOMMUNICATIONS	32.0K bytes	$2,500	C-22
Comm Pro Associates	NAS (NETWORK ACCESS SYSTEM)	64.0K bytes	N/A	C-23
	PP01	48.0K bytes	N/A	C-23
	PP02	48.0K bytes	N/A	C-23
	PP03	48.0K bytes	N/A	C-23
	PP04	48.0K bytes	N/A	C-23
	VLSW (VIRTUAL LINE SWITCH)	256.0K bytes	N/A	C-23
Complan Corp.	ACCESS	N/A	$15,000	C-22
Compo-Draw	COMCOM	12.0K bytes	$85	C-23
	CPMCPM	8.0K bytes	$85	C-22
Comp-U-Staff, Inc.	BSWIP	512.0K bytes	$40,000	C-23
Computer Systems, Inc.	BETA DATA COMM HANDLER	256.0K bytes	$1,500	C-24
Computer Comm. Specialists	ACCA I	128.0K bytes	N/A	C-24
	ACCA II	128.0K bytes	N/A	C-24
Computer Corner	CCS COMMUNICATIONS CONTROL SYSTEM	N/A	$79	C-24

Software Index

VENDOR	MODEL	MEMORY REQUIRED	PRICE	PAGE
Computer Information Enterprises	C-F-NETWORK	22.0K bytes	N/A	C-34
	CREDIT AUTORIZATION INTERFACE	22.0K bytes	N/A	C-34
	SWITCH NETWORK SUPPORT	22.0K bytes	$10,000	C-34
	TELEPHONE PBX SYSTEM	22.0K bytes	N/A	C-34
Computer Toolbox, Inc.	INTELLICOM	56.0K bytes	$50 to $250	C-34
	INTELLICOM VER 1.5 INTELLIGENT COMMUNICATIONS	56.0K bytes	$49	C-34
Computerware Software Unlimited	HAROLD TP MONITOR	100.0K bytes	$3,000	C-34
Computime, Inc.	POINT OF SALES COMMUNICATIONS MANAGEMENT	256.0K bytes	$30,000	C-35
Comptronics	AUTOBAND (AUTOMATIC BAND RATE)	8.0K bytes	$600	C-34
	NETWORK	100.0K bytes	$1,200	C-35
Computview Products	MODEM-86 TELECOMMUNICATIONS UTILITY	24.0K bytes	$89	C-35
Compuware Corp.	CICS-AID	40.0K bytes	$6,000 to $8,000	C-35
Comtel Information Systems	STAR -ELEVEN	N/A	$4,000	C-34
Comtrol Software Inc.	INTEGRATED DATABASE MANAGEMENT SYSTEM-DATA	N/A	$50,000	C-34
	UNIVERSAL COMMUNICATIONS FACILITY	N/A	$40,000	C-35
C & W Inostel Ltd.	IMX 200	128.0K bytes	$35,000	C-34
	IMX 300	128.0K bytes	$50,000	C-34
	IMX 700	128.0K bytes	$150,000	C-35
Cytrol, Inc.	CYX-DC DATA COMMUNICATIONS MONITOR	N/A	$20,000 to $30,000	C-34
	CYX-RT/DECNET REACH THROUGH	N/A	$5,000	C-35
	CYX-RT/IBM REACH THROUGH		$4,600 to $7,000	C-34
	CYX-TRANSACTION PROCESSING SYSTEM	144.0K bytes	$30,000 to $45,000	C-35
Dasford Corp.	TECTRONICS TERMINAL EMULATOR	512.0K bytes	$1,500	C-35
Data Index, Inc.	ZIX - TERMINAL CONTROL SYSTEM	128.0K bytes	$5,000	C-35
Datalex Co.	PASSPORT-MICRO-TO HOST COMPUTER	128.0K bytes	N/A	C-35
Datamark Systems, Inc.	IBM CHANNEL CONTROL UNIT EMULATOR	64.0K bytes	$5,000	C-35
	LOCAL HIGH SPEED DATA LINK	64.0K bytes	$2,000 to $5,000	C-35
Datapoint Corp.	ARC	128.0K bytes	$1,500	C-35
	CHANNEL PRODUCTS DC10, CHOUR, MLCI	128.0K bytes	$1,900	C-35
Datasoft, Inc.	TELE-TALK	N/A	$49	C-35
Data Systems of Baton Rouge	BLAST	48.0K bytes	$250 to $1,395	C-35
Data Technology Industries	CONTE	N/A	$175	C-35
The Datalex Co., Inc.	PASSPORTS SYSTEM	128.0K bytes	$900	C-35
DCA/TAC	E-78	128.0K bytes	N/A	C-35
	FT78	128.0K bytes	$1,195	C-35
	IRMA INTERFACE SOFTWARE	64.0K bytes	$1,195	C-35
DeFore Software Systems, Inc.	AUTOMATIC NETWORKING OPTION	96.0K bytes	$5,000	C-35
Delta Systems, Inc.	WHITE BOX DOWNLOADER	N/A	N/A	C-35
The Destek Group	CENTRAL RESOURCE SERVER CRS VERSION 1	25.0K bytes	$500	C-35
	LOCAL AREA NETWORK OPERATING SERVER	8.0K bytes	$100	C-35
D.G.M.	SOFTWARE HANDLER	64.0K bytes	$99	C-35
Dilko Co., Inc.	DEC DV11 SYNCHRONOUS COMMUNICATIONS HANDLER	12.0K bytes	N/A	C-35
Diodikon Corp.	SINGLE BIT HEXADECIMAL SYSTEM	2.0K bytes	$250	C-35
D. L. Dodkall Engineering	REMOTT	16.0K bytes	$450	C-35
DMW Group	ANDMS ADVANCED NETWORK DESIGN	400.0K bytes	$12,000	C-35
	NDMS NETWORK DESIGN AND MANAGEMENT SYSTEM	160.0K bytes	$6,500	C-35
	NETWORKER	300.0K bytes	$10,000 to $50,000	C-35
	TELECOST	200.0K bytes	$22,000	C-35
	TOP TELETRAFFIC OPTIMIZER PROGRAM	300.0K bytes	$20,000 to $40,000	C-35
D&N Micro Products, Inc.	DISK TRANSFER	48.0K bytes	$100	C-35
Don't Ask Computer Software	TELETARI	22.0K bytes	$40	C-35
Duxbury Systems, Inc.	METERED UTILITY MONITORING SYSTEM	36.0K bytes	$175	C-35
Dynamic Microprocessor Assoc.	ASCOM	32.0K bytes	$175	C-35
Dynamic Solutions	COSMO	32.0K bytes	N/A	C-35
EFT Computer Systems, Inc.	MESSAGE-SWITCHING AND CONTROL SYSTEM	128.0K bytes	N/A	C-35
	PAYMENT AND CONTROL SYSTEM PACS	256.0K bytes	$60,000	C-35
Ecos Corp.	FAIL OVER PACKAGE	N/A	$50,000	C-35
Evans Griffiths and Hart, Inc.	BSC/DV	96.0K bytes	$5,000	C-35
	COLINK	96.0K bytes	$1,250	C-35
	DEALUP	96.0K bytes	$1,700	C-35
	TAM	96.0K bytes	$6,000	C-35
Evergreen Consulting, Inc.	QUICK-TUBE	N/A	$650	C-35
Exec Software, Inc.	TERMEXEC	48.0K bytes	$80	C-35
Fallon & Associates, Inc.	STANDARD & CUSTOM MICROBASED COMPUTER SUPPLY	N/A	N/A	C-27
Forax Microsystems, Inc.	LOGON	128.0K bytes	$150	C-27
Firedge Computer Co.	COM/1	22.0K bytes	$2,395	C-27
Formula Consultants Inc.	MESSAGE MANAGEMENT SYSTEM MMS-110	N/A	$30,000	C-27
	SUPER-SYNCHRONOUS UTS PROTOCOL	48.0K bytes	$800	C-27
Gamma Technology, Inc.	GAMMA TECHNOLOGY WORKSTATIONS	32.0K bytes	$3,000 to $4,000	C-27
	GT70 CENTRAL SITE GT70	32.0K bytes	$4,000 to $6,500	C-27
Gaylord Bros., Inc.	DIAL-UP INQUIRY	48.0K bytes	$5,000	C-27
	GS-500 MICRO COMPUTER NETWORK SYSTEM	48.0K bytes	N/A	C-27
	OCLC INTERFACE	48.0K bytes	$5,000	C-27
	VISI TERM	48.0K bytes	$100	C-27
GEJAC, Inc.	HASP VERSION 3	16.0K bytes	$3,500 to $5,500	C-27
Genesys Corp.	TELIOS	96.0K bytes	N/A	C-27
General Digital Industries, Inc.	COMPAT/200	256.0K bytes	$3,000	C-27
General Electric Information	TSI2.0	100.0K bytes	$250	C-35

VENDOR	MODEL	MEMORY REQUIRED	PRICE	PAGE
George W. Hallahan & Co., Inc.	XCHANGE-11	N/A	$99,500	C-30
G & G Engineering	MODEM 9-16	128.0K bytes	$295	C-30
Glenn A. Barber and Associates	TSX-NET	64.0K bytes	N/A	C-30
Gould, Inc.	HASP REMOTE WORKSTATION	400.0K bytes	$3,000	C-30
Granada Systems Design, Inc.	INTERFACE	96.0K bytes	$12,000 to $25,000	C-30
	TELDEAR	96.0K bytes	$12,500	C-30
Graphic Software Systems	GSS-TERMINAL	128.0K bytes	N/A	C-30
Guild, Inc.	THE GUILD CATALYST	64.0K bytes	$250,000	C-30
Gunn Enterprises, Inc.	CUSTOM CDOS I/O DRIVERS	64.0K bytes	$195	C-30
	MODEM COMMUNICATIONS FOR CROMEMCO	128.0K bytes	$595	C-30
H & A Computer Systems	RSS-REMOTE SERIES 1 SERVICES	8.0K bytes	$3,500	C-30
Harris Corp.	RJE HOST	N/A	$2,600	C-30
	RJE TERMINAL EMULATION	N/A	N/A	C-30
Hasson Systems, Inc.	CRTX	42.0K bytes	$100	C-30
	CRTXE	42.0K bytes	$250	C-30
	REMOTE	N/A	$60	C-30
Horne Computer Services	RPSS-REMOTE PRINTER SPOOLING	N/A	N/A	C-30
Houston Computer Services, Inc.	OCTACOMM/940	N/A	$2,750	C-30
Houston Engineering Research	TDC 2000 DRIVER	128.0K bytes	$4,500	C-30
Howard W. Sams & Co., Inc.	HELLO CENTRAL!	48.0K bytes	$99	C-30
Howe Software	SMART TERMINAL	N/A	$75	C-30
Hunter & Ready, Inc.	C INTERFACE LIBRARY (HP)	N/A	$450	C-30
	C INTERFACE LIBRARY (MIT)	N/A	$450	C-30
	C INTERFACE LIBRARY (WHITE SMITHS)	N/A	$450	C-30
	PASCAL INTERFACE LIBRARY (HP)	N/A	$450	C-30
	PL/M INTERFACE LIBRARY	N/A	$450	C-30
IAS Corp.	GENTERM	64.0K bytes	$79	C-30
IDE Associates, Inc.	IDEACOMM 1200	128.0K bytes	$545	C-30
	IDEACOMM 3278	128.0K bytes	$1,195	C-30
	IDEANET	128.0K bytes	$795	C-30
	IDEASHARE	128.0K bytes	$595	C-30
IE Systems, Inc.	ACCULINK	128.0K bytes	$245	C-30
	BIS-3270	128.0K bytes	$695	C-30
	BIS-3780	128.0K bytes	$695	C-30
	BIS-HASP	128.0K bytes	$695	C-30
	BIS-3270 VERSION 4.0	64.0K bytes	$695	C-30
Industrial Computer Corp.	DDCMP 1000	64.0K bytes	$2,500	C-30
Infomedia Corp.	JENNY	N/A	N/A	C-30
Information Concepts, Inc.	CICS APPLICATION FILE CONTROL	N/A	$2,500	C-30
Information Management Technologies	DEDICOM	256.0K bytes	$20,000 to $40,000	C-30
The Information Organization Corp.	OCR (OPTICAL CHARACTER READER) INTERFACE	256.0K bytes	$1,000	C-30
	WANG VS TO HIGH-SPEED PRINTER	256.0K bytes	$4,000	C-30
	WANG VS TO IBM DISPLAYWRITER	256.0K bytes	$4,000	C-30
	WANG VS TO OCR INTERFACE	256.0K bytes	$1,000	C-31
Infoservices, Inc.	INFOCOMM/INFOHOST ANSWER-DB	32.0K bytes	$3,500	C-31
InfoSoft Systems, Inc.	INFOSOFT NETWORK SYSTEM - MULTINET	32.0K bytes	N/A	C-31
	INTELLIGENT TERMINAL (COMMUNICATION SYSTEM)	3.2M bytes	N/A	C-31
Innovatek Microsystems, Inc.	COMMUNICATION LINK	12.0K bytes	$775	C-31
Integrated Design Engineering, Inc.	NCR COMM	64.0K bytes	$400	C-31
Intelligent Technologies Intl. Corp.	CLUSTER NET 3270	256.0K bytes	$8,303	C-31
	PC EXPRESS 1	256.0K bytes	$695	C-31
	PC EXPRESS 2	256.0K bytes	$1,295	C-31
Interon Research Corp.	INTERCON 100A	15.0K bytes	$1,250 to $4,995	C-31
Intermatrix	TALK	N/A	$500	C-31
International Digital Electronics Assoc.	COMMUNICATION	N/A	$1,500	C-31
Keybrook Business Systems, Inc.	KEYBROOK FILESERVER	N/A	$2,700	C-31
Keystone Data Consultants, Inc.	FILE TRANSMISSION PACKAGE	128.0K bytes	$1,200	C-31
Learned-Stoke	ASTALK	64.0K bytes	$295	C-31
Legist Automation, Inc.	UT 200	N/A	$10,000	C-31
Lindbergh Systems	OMNITERM	N/A	$60 to $175	C-31
Link Systems	DATALINK	64.0K bytes	N/A	C-31
Legion, Inc.	FASTRAN	1.0M bytes	$100,000	C-31
	FASTRX	1.0M bytes	$75,000	C-32
	FASTWIRE	1.0M bytes	$100,000	C-32
MacKinney Systems	CICS/SPOOLER	32.0K bytes	$695	C-32
Magnum Communications, Ltd.	CREDICHECK	32.0K bytes	$9,500 to $35,500	C-32
Mathematics Products Group	ATLAS	N/A	$38,000	C-32
McCormack & Dodge Corp.	PCIM	100.0K bytes	$10,000	C-32
McDonnell Douglas Automation Co.	MCAUTO SYSTEM 1	1.0K bytes	N/A	C-32
MCM Enterprises	PROCALL	64.0K bytes	$350	C-32
Megarevet Systems, Inc.	MEGA NET	64.0K bytes	$2,000	C-32
Meridian Technical Associates, Inc.	INTELLIGENT MODEM PROGRAM IMP	32.0K bytes	$30	C-32
Micro-Integration, Inc.	BIS 3270 VERSION 4.0	64.0K bytes	$695	C-32
	BIS 3780 VERSION 5.0	64.0K bytes	$695	C-32
	BIS HASP VERSION 1.1	64.0K bytes	$695	C-32
	COAXSYS TM	64.0K bytes	$1,195	C-32
	MICRO-SNA/3270 VERSION 1.0	64.0K bytes	$695	C-32
	MICRO-SNA3770	64.0K bytes	$695	C-32

Software Index

VENDOR	MODEL	MEMORY REQUIRED	PRICE	PAGE
Micro/Macro Systems, Inc.	BI-SYNC	128.0K bytes	$495	C-35
Micron, Inc.	COMM LINE	64.0K bytes	$300	C-33
	SMART TERM I	32.0K bytes	N/A	C-33
The Microperipheral Corp.	TSMART	32.0K bytes	$50	C-33
MicroSpare, Inc.	TELETEXT	48.0K bytes	$80	C-33
Microstuf, Inc.	CROSSTALK XVI	96.0K bytes	$195	C-33
	REMOTE	N/A	$150	C-33
	TRANSPORTER	96.0K bytes	$295	C-33
Micro-Systems Software, Inc.	BBS-80	N/A	$80	C-35
	MICROTERM	N/A	$80	C-33
	QUADROMACK	N/A	$800 to $1,000	C-33
Modular Integration, Inc.	COMPAK	256.0K bytes	$500	C-33
	SDLC/HDLC	256.0K bytes	$1,000	C-33
Mohawk Data Sciences Corp.	BSC 3741	N/A	N/A	C-33
	EM 3275	N/A	N/A	C-33
	MASP/WS	9.6M bytes	N/A	C-33
	REMOTE COPY	N/A	N/A	C-33
Monroe Systems For Business	ASCOM +	128.0K bytes	$175	C-33
	MONROE BIS-3780	128.0K bytes	$750	C-33
	MONROE BIS-3270	128.0K bytes	$750	C-33
	MONROE TTY EMULATOR	128.0K bytes	$85	C-33
	MONROE BIS-HASP	128.0K bytes	$795	C-33
	MONROE 3270 SNA/SDLC	128.0K bytes	$995	C-33
Mountain Computer, Inc.	SUPER TALKER	N/A	N/A	C-34
Mumford Micro Systems	DEMON	32.0K bytes	$29	C-34
	TELCOM II	32.0K bytes	$69	C-34
	TELECOM I	32.0K bytes	$39	C-34
National E-P-T, Inc.	LINK/1	64.0K bytes	$20,000	C-34
National Micro Products, Inc.	MODEM	64.0K bytes	$40,000	C-34
	SMODEM	64.0K bytes	$40,000	C-34
	XMODEM	64.0K bytes	$40,000	C-34
National Semiconductor Corp.	ANS-TRAN	256.0K bytes	N/A	C-34
	BHCS	256.0K bytes	N/A	C-34
NCR Comten, Inc.	ACF/NCP 3	N/A	N/A	C-35
	CNS 2-COMMUNICATIONS NETWORKING SYSTEM	N/A	N/A	C-34
	EP 4-EMULATION PROCESSING	N/A	N/A	C-34
	MAF 3-3270 MULTIPLE ACCESS FACILITY	N/A	N/A	C-34
	NTO-NETWORK TERMINAL OPTION	N/A	N/A	C-35
	SRM 1-SUB AREA ROUTING MANAGER	N/A	N/A	C-34
	X.25 PUBLIC DATA NETWORK	N/A	N/A	C-34
NCR Corp.	NCR-DMS/TRAN-PRO EL	1.0K bytes	N/A	C-34
Nestar Systems, Inc.	MESSENGER ELECTRONIC MAIL	64.0K bytes	N/A	C-34
	3270 CLUSTER EMULATOR SERVER	64.0K bytes	$2,000	C-34
	3278 EMULATOR	64.0K bytes	$200	C-34
	3770 EMULATOR SERVER	64.0K bytes	$1,000	C-34
	FILE TRANSFER SERVER	64.0K bytes	$2,000	C-34
New Generation Systems, Inc.	AMCALL	64.0K bytes	$150	C-33
N. F. Systems, Ltd.	HOST COMM	128.0K bytes	$120	C-35
Nixdorf Computer Corp.	3270 BISYNC EMULATOR	512.0K bytes	N/A	C-35
	3270 SNA EMULATOR	512.0K bytes	N/A	C-33
	3770 SNA EMULATOR	512.0K bytes	N/A	C-35
Northeast Datacom, Inc.	TELECOMMUNICATIONS	28.0K bytes	N/A	C-35
Office Express, Inc.	INTF 3270	N/A	N/A	C-35
Orion Software, Inc.	NETWORK ORION	96.0K bytes	$3,200 to $10,000	C-35
Paper Software	GNET	128.0K bytes	$1,000	C-35
Pacesetter Systems, Inc.	PACER/HPS-HOST PROCESSING SYSTEM	N/A	N/A	C-35
Pacific Software Manufacturing Co.	X.DOT PAD	64.0K bytes	$40,000	C-35
	X.DOT:X 25	64.0K bytes	$30,000	C-35
	X.DOT FOR UNIX	64.0K bytes	$40,000	C-35
Participation Systems, Inc.	PARTICIPATE	160.0K bytes	$30,000 to $60,000	C-35
Pathway Design, Inc.	PATHWAY/BSC	128.0K bytes	$595	C-35
	PATHWAY/SNA	128.0K bytes	$595	C-35
Peachtree Software	TELECOMMUNICATIONS	N/A	$150	C-35
Peregrine Systems, Inc.	PNMS	64.0K bytes	$250,000	C-35
Pickles & Trout	LYNC 3.0 COMMUNICATIONS SOFTWARE	32.0K bytes	$85	C-35
Pipeline Data Systems	TERM	48.0K bytes	N/A	C-35
Polygon Software Corp.	INTERCOMM	N/A	$75,000	C-35
Prime Computer, Inc.	DPTX - INTERCONNECT FACILITY FOR IBM 3270	N/A	$7,500	C-35
	EM 200 UT - EMULATION FOR CONTROL DATA UT 200	N/A	$3,750	C-35
	EM 1004 - EMULATION FOR UNIVAC 1004	N/A	$3,750	C-35
	EM 7020 - EMULATION FOR ICL 7020	N/A	$3,750	C-35
	EM GRTS - EMULATION FOR HONEYWELL GRTS	N/A	$4,500	C-35
	EM XBM - EMULATION FOR ICL XBM	N/A	$3,750	C-35
	EM HASP - EMULATION FOR IBM HASP II	N/A	$5,250	C-35
	EM X80 - EMULATION FOR IBM 2780/3780	N/A	$4,500	C-35
	FILE TRANSFER SERVICE	N/A	$2,000	C-35
	PACKET NETWORK INTERFACE	N/A	$2,500	C-35
	PRIMENET - NETWORKING FACILITY	N/A	$7,500	C-35

Software Index

VENDOR	MODEL	MEMORY REQUIRED	PRICE	PAGE
Program Resources, Inc.	WANG DEC LINK	N/A	$995	C-39
Protocol Computer, Inc.	PCITERM 51 (UPGRADED VERSION OF 5156 PLUS)	128.0K bytes	$295	C-39
	PCITERM 78(UPGRADED VERSION OF 7887 PLUS)	128.0K bytes	$295	C-39
Quadster Corp.	AUDIO RESPONSE SYSTEM	512.0K bytes	$75,000	C-39
	AUTOMATED COLLECTION SYSTEM	512.0K bytes	$75,000	C-37
	HOME BANKING SYSTEM	512.0K bytes	$50,000	C-37
	MINIHOST	512.0K bytes	$200,000	C-37
Quality Software, Inc.	QS CALL	64.0K bytes	$195	C-37
	QS SAM	48.0K bytes	$795	C-37
Racet Computers, Ltd.	MAGIC MAIL	32.0K bytes	$150	C-37
RCS (Racoa Computer Systems), Inc.	SUPER COM	48.0K bytes	$19,500	C-37
Real-Time Management Inc.	REMOTE 990	192.0K bytes	$12,500	C-37
Redding Group, Inc.	ALPACA PLUS	48.0K bytes	$500	C-37
	ALPACA-PLUS - VERSION 2.56	48.0K bytes	$500	C-37
	ASYNCH	48.0K bytes	$100	C-37
	ASYNCH - VERSION 3.01	48.0K bytes	$100	C-37
	LYNX	48.0K bytes	$250 to $150	C-37
	MICRO E COM	48.0K bytes	N/A	C-37
	MICRO X.25	48.0K bytes	N/A	C-37
	SYNCH 2780/3780	48.0K bytes	$500	C-38
	SYNCH 2780/3780 - VERSION 2.52	48.0K bytes	$500	C-38
	SYNCH 3270	48.0K bytes	$750	C-38
	SYNCH 3270 - VERSION 1.3	48.0K bytes	$750	C-38
Remm Systems, Inc.	TELESTAR	64.0K bytes	$195	C-38
Remote Computing Corp.	DIAL DATA	64.0K bytes	$100	C-38
RGTI Systems Software	3271/DD DEVICE DRIVER	N/A	$2,700	C-38
	RFX-11 VERSION II (FILE TRANSFER UTILITY)	5.0K bytes	$675	C-38
	SCREENSHARE-11 TERMINAL MONITOR FACILITY	N/A	$1,250	C-38
Roteleom Data, Inc.	SATURN-SPECIAL SERVICES AND TRUNK UTILIZATION	2.0M bytes	N/A	C-39
RTCS	PC/ENET VERSION 1.0	128.0K bytes	$1,700	C-39
RUF Corp.	IMPRS COMMUNICATIONS SOFTWARE	28.0K bytes	$2,000	C-39
Sensible Software, Inc.	TELE-PORTER	48.0K bytes	$80	C-39
SGS Semiconductors, Corp.	DEC VAX COMMUNICATIONS	512.0K bytes	N/A	C-39
	HP 3000 COMMUNICATIONS	512.0K bytes	N/A	C-39
	IBM 3780 PROTOCOL	512.0K bytes	N/A	C-39
	TELEX PLUX	512.0K bytes	N/A	C-39
	X.25	512.0K bytes	N/A	C-39
Simcon, Inc.	TELECOMM	256.0K bytes	N/A	C-39
	TELECOMMUNICATIONS INTERFACE	256.0K bytes	$14,000 to $20,000	C-39
Smart, Inc.	SERIES 1 POLLER & CREDIT AUTHORIZATION SYSTEM	64.0K bytes	$20,000 to $80,000	C-39
Smith Educational Engineering Svcs.	ICOMM	48.0K bytes	$150	C-39
Software AG of North America, Inc.	COM-PLETE	512.0K bytes	N/A	C-39
Software Clearing House	VMOS	41.0K bytes	$9,500	C-39
	VIRTEX	N/A	$7,000 to $17,000	C-39
Software & Communication Concepts	SOFTWARE & COMMUNICATIONS CONCEPT	N/A	$100,000	C-39
Software Development & Maintenance	SDM/RPO ELECTRONIC REMOTE PURCHASE	64.0K bytes	$5,000	C-39
Software Development Corp.	DAGAR DTS-3	48.0K bytes	$250	C-39
Software Dynamics	MODEM	32.0K bytes	$250	C-39
	SDNET	64.0K bytes	$200	C-39
Software Management Systems, Inc.	MICROTALK	128.0K bytes	$300	C-39
The Software Store	SOFTCOM - TELECOMMUNICATIONS UTILITY	32.0K bytes	$150	C-39
Software Systems, Inc.	5251 MODEL 12 WORK STATION EMULATOR	64.0K bytes	$500	C-39
	SYSTEM 34, 36, 38 EMULATOR TRANSFER	N/A	$350 to $750	C-39
Softworks, Inc.	VIRTUAL TERMINAL FACILITY	512.0K bytes	$7,500	C-39
Southern Computer Systems, Inc.	ISIS-CP/M	16.0K bytes	$250	C-39
Southwestern Data Systems, Inc.	ASCII EXPRESS II	48.0K bytes	$35	C-39
	ASCII EXPRESS THE PROFESSIONAL	48.0K bytes	$130	C-39
	ONLINE	48.0K bytes	$90	C-40
	P-TERM THE PROFESSIONAL	48.0K bytes	$130	C-40
	Z-TERM	48.0K bytes	$100	C-40
	Z-TERM THE PROFESSIONAL	48.0K bytes	$150	C-40
Spartacus Computers, Inc.	KNET	N/A	$15,000	C-40
Start Systems	AUTOPASS 3270TM	256.0K bytes	$15,000 to $60,000	C-40
Stratus Computer, Inc.	3270 EMULATOR FACILITY	N/A	$5,000	C-40
	3270 TERMINAL SUPPORT	N/A	$4,000	C-40
	RJE-REMOTE JOB ENTRY	N/A	$3,000	C-40
SuperSoft, Inc.	TERM II	32.0K bytes	$200	C-40
Systar Corp.	GATEWAY 34/38	256.0K bytes	$22,000 to $34,000	C-40
	GATEWAY/370	192.0K bytes	$16,000	C-40
	LODESTAR 34/38	384.0K bytes	$40,000	C-40
The Systems Center	NETWORK ACCESS SERVICES CORVUS	512.0K bytes	N/A	C-40
	NETWORK ACCESS SERVICES-SERIES/1	N/A	N/A	C-40
The Systems Center, Inc.	NETWORK DATAMOVER	N/A	N/A	C-40
	SNA ON MICRO COMPUTERS	100.0K bytes	N/A	C-40
System & Software, Inc.	NEXUS	N/A	$420	C-40
Systems Resources Corp.	SM 3278	N/A	$6,500	C-40
Systems Strategies, Inc.	2780/3780 EMULATOR	N/A	$47,000	C-41
	3270 BSC EMULATOR	N/A	$85,000	C-41

Software Index

VENDOR	MODEL	MEMORY REQUIRED	PRICE	PAGE
Systems Strategies, Inc.	3270 SNA EMULATOR	N/A	$13,000	C-61
	X.25 INTERFACE	N/A	$80,000	C-61
Taft Consulting, Inc.	TERRALINK	N/A	$5,000	C-61
Techsics, Inc.	SERIAL FILE TRANSFER PROGRAM	4.0K bytes	$100	C-61
Teleplex, Inc.	CHAMELEON ASYNC	64.0K bytes	$1,000	C-61
	CHAMELEON BASIC	64.0K bytes	$1,000	C-61
	CHAMELEON BISYNC	N/A	$1,000	C-61
	FRAMEM (FRAME LEVEL EMULATOR)	N/A	$1,000	C-61
	FRANEM	64.0K bytes	$1,000	C-61
	SIMP/L	64.0K bytes	$1,000	C-61
	SIMP/L (SIMULATOR INTERACTIVE MULTI-PROTOCOL)	N/A	$1,000	C-61
	SITREX	64.0K bytes	$2,000	C-61
	SITREX-PLUS	N/A	$1,000	C-61
Telco Research Corp.	GENERAL COST ALLOCATION (GCA)	100.0K bytes	$26,500	C-61
	MULTI-NODE TANDEM OPTYMIZER (MTO)	100.0K bytes	N/A	C-61
	THE ACD OPTYMIZER	N/A	$27,500	C-61
	THE OPTYMIZER PLUS	N/A	$28,600	C-61
	TRU DATA RECORDER/POLLER	256.0K bytes	$12,500 to $14,500	C-62
Telephone Software Connection, Inc.	ANSWERING MACHINE	48.0K bytes	$40	C-62
	PHONE SECRETARY II	48.0K bytes	$45	C-62
	PICTURE TRANSFER PROGRAM	48.0K bytes	$40	C-62
	TELEPHONE TRANSFER II	48.0K bytes	$80	C-62
	TERMINAL PROGRAM	48.0K bytes	$40	C-63
Texas Instruments, Inc.	TERMINAL EMULATOR II	N/A	$50	C-62
Theon Systems, Inc.	REMCOM	64.0K bytes	$95	C-62
TITN	TITN X.25 VERSION 1.0	64.0K bytes	N/A	C-62
TMW Corp.	PTWX	8.0K bytes	$99	C-63
	XPTERM	32.0K bytes	$49 to $59	C-62
Top Down Systems	INTF 3270	256.0K bytes	$5,125	C-63
	TERMINAL MONITOR	256.0K bytes	$39,375	C-62
	VTAM 3270	256.0K bytes	$8,125	C-62
Transaction Data Systems, Inc.	PACKET NETWORK FACILITY	500.0K bytes	$5,000	C-62
	STAT-MUX SUPPORT FACILITY	500.0K bytes	$5,000	C-62
Transend Corp.	TRANSEND I	N/A	$89	C-62
	TRANSEND II	N/A	$149	C-62
	TRANSEND III	N/A	$275	C-62
	TRANSEND PC	N/A	$189	C-62
Unique Automation Products	RJE REMOTE JOB ENTRY SOFTWARE	N/A	$1,950 to $2,250	C-62
	UAP-LINK	N/A	$250 to $1,500	C-62
	UAP-LINK FILE TRANSFER SOFTWARE	N/A	$250	C-62
Unisoft System Corp.	B-NET	156.0K bytes	$400	C-62
University Computing Co.	UCC MBA-MICROCOMPUTER SOFTWARE	256.0K bytes	N/A	C-63
USMA Computer Co.	COMMUNICATIONS PACKAGE	64.0K bytes	$200	C-13
	IBM PC COM	64.0K bytes	$200	C-62
Van Amburg & Associates, Inc.	TAC SOFT	780.0K bytes	N/A	C-62
VisiCorp	VISIANSWER	N/A	N/A	C-63
	VISITERM	N/A	$100	C-63
Wild Hare Computer Systems, Inc.	HARE/NET	N/A	$2,000	C-63
Wintechnics, Inc.	NS3270 AND NS3780	56.0K bytes	N/A	C-62
Zalex Communications, Inc.	TRANSLATION EXPRESS	N/A	$500	C-63
Zieman Associates, Inc.	TAP	56.0K bytes	$1,000	C-63

A. B. DICK CO.
A. B. DICK HASP
Additional Product Classification: Communications/TP Monitors
Specific Application: Data Communications
System Requirements: AB Dick Magna Writer, CP/M; AB Dick Magna III, CP/M; Magna SL, CP/M
Memory Required: 64.0K bytes
Source Language: Assembler
Source Code Available: No
Purchase Terms: Purchase (license) - $416
Date First Installed: March 1983
(See Vendor Profile Page V-1)

A. B. DICK CO.
A B DICK MAGNA SOFTWARE
Additional Product Classification: Communications/TP Monitors
Specific Application: Data Communication
System Requirements: AB Dick Magna Writer, CP/M; AB Dick Magna III, CP/M; AB Dick Magna SL, CP/M
Memory Required: 64.0K bytes
Source Language: Assembler
Source Code Available: No
Purchase Terms: Purchase (license) - $300
Date First Installed: March 1983

A. B. DICK CO.
A. B. DICK SIS 3270TM
Additional Product Classification: Communications/TP Monitors
Specific Application: Data Communications
System Requirements: AB Dick Magna Writer, CP/M; AB Dick Magna III, CP/M; AB Dick Magna SL, CP/M
Memory Required: 64.0K bytes
Source Language: Assembler
Source Code Available: No
Purchase Terms: Purchase (license) - $400
Date First Installed: March 1983

A. B. DICK CO.
A B DICK SIS 3780TM
Additional Product Classification: Communications/TP Monitors
Specific Application: Data Communications 2780/3780
System Requirements: AB Dick Magna Writer, CP/M; AB Dick Magna III, CP/M; AB Dick Magna SL, CP/M
Memory Required: 64.0K bytes
Source Language: Assembler
Source Code Available: No
Purchase Terms: Purchase (license) - $400
Date First Installed: March 1983

ABT ASSOCIATES
DATA TRANS
Additional Product Classification: Communications/TP Monitors
Specific Application: Automatic Telecommunication and Data Transfer; Will Run at 300 or 1200 Baud
System Requirements: Apple II+, Apple DOS
Memory Required: 48.0K bytes
Source Language: Basic
Source Code Available: No
Purchase Terms: Purchase (license) - $100
Number Installed to Date: 1,000
Date First Installed: September 1982
(See Vendor Profile Page V-1)

ACCESS TELECOMMUNICATIONS
ACCESS 34/36/38
Additional Product Classification: Communications/TP Monitors
Specific Application: Provides Asynchronous Communication for IBM System/34, 36, 38
System Requirements: IBM System/34, 36, 38; DOS
Source Language: RPG-III, Assembler
Source Code Available: No
Purchase Terms: Purchase (license)
Number Installed to Date: 100
Date First Installed: November 1981
(See Vendor Profile Page V-1)

ACTION/HONEYWELL
SI
Additional Product Classification: Communications/TP Monitors
Specific Application: Analog Communications Package
Specific Industry: Telecommunications
System Requirements: DG: RTOS
Memory Required: 256.0K bytes
Source Language: Assembler
Source Code Available: No
Purchase Terms: Purchase (license)
Number Installed to Date: 64
Date First Installed: 1978
(See Vendor Profile Page V-1)

ACTION/HONEYWELL
SI
Additional Product Classification: Communications/TP Monitors
Specific Application: Digital Communication Package
Specific Industry: Telecommunications
System Requirements: DG: RTOS
Memory Required: 256.0K bytes
Source Language: Assembler
Source Code Available: No
Purchase Terms: Purchase (license)
Number Installed to Date: 64

ADVANCED COMPUTER TECHNIQUES
ACT NETWORK PROCESSOR
Additional Product Classification: Communications/TP Monitors
Specific Application: Comprehensive Communications Controller
Specific Industry: Communication
System Requirements: Honeywell DPS 6, Honeywell Level 6
Source Language: Assembler
Purchase Terms: Purchase (license)
Number Installed to Date: 10
Date First Installed: 1981
(See Vendor Profile Page V-1)

ADVANCED INFORMATION MANAGEMENT
AIM/FILE CONVERSION SYSTEM
Additional Product Classification: Communications/TP Monitors
Specific Application: Menu-Driven Aid for Converting from One Machine to Another
System Requirements: IBM 370; IBM 303X; IBM 433X
Source Language: Cobol
Purchase Terms: Purchase (license); Rental; Lease
Date First Installed: 1982

ADVANCED MICRO TECHNIQUES
INTELLIGENT TERMINAL - VERSION 1
Additional Product Classification: Communications/TP Monitors
Specific Application: Asynchronous Communication Package
System Requirements: CP/M, MP/M
Memory Required: 48.0K bytes
Source Language: Assembler
Source Code Available: No
Purchase Terms: Purchase (license) - $150
Number Installed to Date: 500
Date First Installed: June 1981
(See Vendor Profile Page V-1)

ADVANCED MICRO TECHNIQUES
MICROTLX - VERSION 1.02
Additional Product Classification: Communications/TP Monitors
Specific Application: Converts CP/M Into Telex/TWX Machine
System Requirements: MP/M, CP/M
Memory Required: 48.0K bytes
Source Language: Assembler
Source Code Available: No
Purchase Terms: Purchase (license) - $150
Number Installed to Date: 7,800
Date First Installed: 1982

ADVANCED SOFTWARE PRODUCTS, INC.
3101 EMULATOR
Additional Product Classification: Communications/TP Monitors
Specific Application: Emulates 3101 Terminal
System Requirements: IBM PC
Memory Required: 128.0K bytes
Source Language: Assembler
Source Code Available: No
Purchase Terms: Purchase (license) - $300
Number Installed to Date: 100
Date First Installed: 1982
(See Vendor Profile Page V-1)

ADVANCED SYSTEMS CONCEPTS, INC.
PRISM PROFESSIONAL INTER SYSTEM
Additional Product Classification: Communications/TP Monitors
Specific Application: Emulates IBM 3276 With 3278 Model 2 Display Station Intersystem Communications Via Tasks
System Requirements: DEC Professional 300, P/OS
Memory Required: 512.0K bytes
Source Language: Basic
Source Code Available: No
Purchase Terms: Purchase (license) - $595
Number Installed to Date: 120
Date First Installed: June 1983

ADVANCED SYSTEMS CONCEPTS, INC.
REMOTE PRINTER SUPPORT
Additional Product Classification: Communications/TP Monitors
Specific Application: Transports, Queues and Spools Report to Other Remote Systems Via Decnet
System Requirements: DEC VAX, VMS
Memory Required: 1.0M bytes
Source Language: Macro
Source Code Available: No
Purchase Terms: Purchase (license) - $1,500
Number Installed to Date: 1
Date First Installed: June 1983

ALPHAMATRIX, INC.
BATCH EMULATOR 2780/3780/3741
Additional Product Classification: Communications/TP Monitors
Specific Application: Batch File Transfer from Micro to Mainframe
System Requirements: IBM, MTX-80; Burroughs, Sperry
Memory Required: 16.0K bytes
Source Language: Assembler
Number Installed to Date: 600
Date First Installed: 1978
(See Vendor Profile Page V-1)

ALPHA SYSTEMS LTD.
ALPHACOMM
Additional Product Classification: Communications/TP Monitors
Specific Application: Communications Package
System Requirements: Compucorp 600, 700 Series, Zebra
Memory Required: 64.0K bytes
Source Language: Compiled Basic
Purchase Terms: Purchase (license) - $200
Number Installed to Date: 7
Date First Installed: 1980
(See Vendor Profile Page V-1)

ALPHA SYSTEMS LTD.
MUCOMM
Additional Product Classification: Communications/TP Monitors
Specific Application: TTY Terminal Simulator
System Requirements: Jacquard 100, 200, 300, 500
Memory Required: 64.0K bytes
Source Language: Compiled Basic
Purchase Terms: Purchase (license) - $100
Number Installed to Date: 5
Date First Installed: 1978

ALTERGO PRODUCTS, INC.
ALTERGO PRODUCTS SHADOW II
Additional Product Classification: Communications/TP Monitors
Specific Application: Full Function Teleprompter Monitor
System Requirements: IBM 303X, 4300: DOS/VSE, OS, VS
Memory Required: 100.0K bytes
Source Language: Assembler
Source Code Available: No
Purchase Terms: Purchase (license);

Rental - $26,000
Number Installed to Date: 7,400
Date First Installed: 1975
(See Vendor Profile Page V-1)

THE ALTERNATE SOURCE
TCOM
Additional Product Classification: Communications/TP Monitors
Specific Application: Tape-Based Communication; Full Uploading and Downloading
System Requirements: TRS-80/3: DOS/80; TRS-80/4: TRS-DOS, DOS/Plus, Multi-DOS
Purchase Terms: Purchase (license) - $29
Number Installed to Date: 50
Date First Installed: October 1982
(See Vendor Profile Page V-2)

THE ALTERNATE SOURCE
TRANCEIVE
Additional Product Classification: Communications/TP Monitors
Specific Application: Access Floppy Disk Controller, Perform Track I/O
System Requirements: TRS-80/1: MultI-DOS; TRS-80/3: DOS/80; TRS-80/4: TRS-DOS, DOS/Plus
Source Language: Basic
Purchase Terms: Purchase (license) - $29
Number Installed to Date: 500
Date First Installed: November 1982

THE ALTERNATE SOURCE
TRS-80 COMMUNICATION
Additional Product Classification: Communications/TP Monitors
Specific Application: Allows TRS-80 to Talk to Micros and Mainframes
System Requirements: TRS-80/1: MultI-DOS; TRS-80/3: DOS/80; TRS-80/4: TRS-DOS, DOS/Plus
Memory Required: 32.0K bytes
Source Language: Z80
Purchase Terms: Purchase (license) — $39
Number Installed to Date: 1,000
Date First Installed: February 1980

AMERICAN COMPUTER & ELECTRONICS CORP.
HASP 999
Additional Product Classification: Communications/TP Monitors
Specific Application: Communications Link Between TI and IBM
Memory Required: 25.0K bytes
Source Language: Assembler
Source Code Available: No
Purchase Terms: Purchase (license) - $5,000
Date First Installed: 1981
(See Vendor Profile Page V-2)

APPLIED CYBERNETICS, INC.
FREEFORM/3000
Additional Product Classification: Communications/TP Monitors
Specific Application: Communications Interface for HP Terminals Only
System Requirements: HP 3000, MPE
Source Language: SPL
Source Code Available: No
Number Installed to Date: 34
Date First Installed: 1977
(See Vendor Profile Page V-2)

APPLIED CYBERNETICS, INC.
TERMINAL/3000
Additional Product Classification: Communications/TP Monitors
Specific Application: Communications Interface Between HP 3000 and Non-HP Terminals
System Requirements: HP 3000, MPE
Source Language: SPL
Source Code Available: No
Purchase Terms: Purchase (license); Lease - $2,500
Number Installed to Date: 34
Date First Installed: 1977

APPLIED DATA RESEARCH, INC.
ADR/DATACOM/DC - RELEASE 4
Additional Product Classification: Communications/TP Monitors
Specific Application: TP Monitor
System Requirements: IBM Series 370, 303X: OS, DOS
Source Language: Assembler
Source Code Available: No
Purchase Terms: Purchase (license); Rental; Lease - $13,600 to $51,500
(See Vendor Profile Page V-2)

APPLIED INFORMATION SYSTEMS, INC.
COMMUNICATION SYSTEM-VERSION 2.0
Additional Product Classification: Communications/TP Monitors
Specific Application: Communications
System Requirements: DEC PDP-11 Series, VAX-11 Series, Professional 300
Memory Required: 3.0K bytes
Source Language: Assembler
Purchase Terms: Purchase (license) - $4,400
Number Installed to Date: 75
Date First Installed: 1974
(See Vendor Profile Page V-2)

ARBAT SYSTEMS LTD.
ARBAT SERIES 700 INTELEX SYSTEM
Additional Product Classification: Communications/TP Monitors
Specific Application: Automatic Telex System
Specific Industry: Banking/Financial
System Requirements: DEC PDP-11, DEC VAX, VMS
Memory Required: 512.0K bytes
Source Language: Alms Basic
Purchase Terms: Purchase (license); Source Code Available: No
Number Installed to Date: 25
Date First Installed: 1980
(See Vendor Profile Page V-2)

ASHTON, INC.
ELECTRONIC MESSAGE SYSTEM
Additional Product Classification: Communications/TP Monitors
Specific Application: Simulates Electronic Mail Center and Remote Data Base
System Requirements: IBM PC; MS-DOS; Apple II: DOS
Memory Required: 64.0K bytes
Source Language: Basic
Purchase Terms: Purchase (license) - $495
Number Installed to Date: 10
Date First Installed: February 1983
(See Vendor Profile Page V-3)

ATON INTERNATIONAL, INC.
MICRO/REMOTE 2780/3780 EMULATOR
Additional Product Classification: Communications/TP Monitors
Specific Application: Allows Micro or Minicomputer to Emulate IBM 2780 or 3780 Remote Batch Terminals
System Requirements: CP/M
Memory Required: 24.0K bytes
Source Language: C
Purchase Terms: Purchase (license) - $25,000
Date First Installed: November 1982
(See Vendor Profile Page V-3)

ATON INTERNATIONAL, INC.
MICRO/REMOTE 3270 EMULATOR
Additional Product Classification: Communications/TP Monitors
Specific Application: Emulates IBM 3275 Interactive Data Terminal Using Bisynchronous Protocol
System Requirements: Unix, CP/M
Memory Required: 24.0K bytes
Source Language: C
Purchase Terms: Purchase (license) - $25,000
Date First Installed: November 1982

AUTOMATED BUSINESS CENTERS
COMM-HANDLER
Additional Product Classification: Communications/TP Monitors
Specific Application: Remote Communication With Other Computers
System Requirements: SWT, Unitex
Memory Required: 128.0K bytes
Source Language: Assembler
Purchase Terms: Purchase (license) - $295
Number Installed to Date: 25
Date First Installed: 1982
(See Vendor Profile Page V-3)

AUTOMATED PROFESSIONAL SYSTEMS
APSTRAN
Additional Product Classification: Communications/TP Monitors
Specific Application: Transfers Data Between Various Incompatible File Formats
System Requirements: CP/M 80, CP/M 86, MS-DOS, PC-DOS
Memory Required: 64.0K bytes
Source Language: Pascal
Source Code Available: No
Purchase Terms: Purchase (license)
Date First Installed: September 1983
(See Vendor Profile Page V-3)

AUTOMATION DESIGN, INC.
THINKER-PC
Additional Product Classification: Communications/TP Monitors
Specific Application: Uses IBM PC to Interface With Online Systems
System Requirements: IBM PC
Purchase Terms: Lease
(See Vendor Profile Page V-3)

BARR SYSTEMS, INC.
BARR/HASP
Additional Product Classification: Communications/TP Monitors
Specific Application: HASP Multileaving Work Station Package for The IBM PC
System Requirements: IBM PC, PC-DOS
Memory Required: 128.0K bytes
Source Language: Macro Assembler
Source Code Available: No
Purchase Terms: Purchase (license) - $750
Number Installed to Date: 20
Date First Installed: August 1983
(See Vendor Profile Page V-3)

BASIC BUSINESS CONTROL SYSTEMS, INC.
ELECTRONIC SCALE POLLING SYSTEM
Additional Product Classification: Communications/TP Monitors
Specific Application: Sends and Retrieves Data to and from Multiple Electronic Scales
Specific Industry: Retail
System Requirements: IBM Series 1, EDX; IBM, DOS
Memory Required: 128.0K bytes
Source Language: EDL, Assembler
Source Code Available: No
Purchase Terms: Purchase (license)
Number Installed to Date: 1
Date First Installed: May 1983
(See Vendor Profile Page V-4)

BASIC BUSINESS CONTROL SYSTEMS, INC.
ELECTRONIC TIME CLOCK POLLING SYSTEM
Additional Product Classification: Communications/TP Monitors
Specific Application: Sends and Retrieves Data to and from Intelligent Stand-Alone Electronic Time Clock
System Requirements: IBM Series/1, EDX
Memory Required: 128.0K bytes
Source Language: EDL
Source Code Available: No
Purchase Terms: Purchase (license)
Number Installed to Date: 1
Date First Installed: May 1983

BASS SIEED ASSOCIATES, INC.
VMDS
Additional Product Classification: Communications/TP Monitors
Specific Application: Connecting Intel Development Stations to Minicomputers for Shared Use
System Requirements: HP 1000: RTE, DEC PDP: RSX-11M
Source Language: Fortran
Source Code Available: No
Purchase Terms: Purchase (license) - $15,000
Number Installed to Date: 1

Date First Installed: October 1982
(See Vendor Profile Page V-4)

BERGEN C. STONE & ASSOCIATES
TRIMS
Additional Product Classification: Communications/TP Monitors
Specific Application: Telecommunication Resources Improvement System
System Requirements: IBM, OS-DOS, Sperry; DEC PDP-11; TRS-80
Memory Required: 64.0K bytes
Source Language: Fortran
Purchase Terms: Purchase (license); Lease - $20,000 to $36,000
Number Installed to Date: 20
Date First Installed: June 1979

BORNEGAZE, BOLERDY & HARRISON
VIRTEX
Additional Product Classification: Communications/TP Monitors
Specific Application: Cogmunications
System Requirements: NCR 8500; NCR 8600
Memory Required: 1.0M bytes
Source Language: Cobol 74
Purchase Terms: Purchase (license); Rental - $9,500
Number Installed to Date: 145
Date First Installed: May 1979
(See Vendor Profile Page V-4)

CAP INFORMATION SYSTEMS
LINEAR AND MATHEMATICAL PROGRAMMING SYSTEM
Additional Product Classification: Communications/TP Monitors
Specific Application: X.25 Software for Equipment Attached to Packet Switching Networks
System Requirements: IBM; DEC 20, VAX, Tops 20, VMS; Prime 650: Primos; Perkin-Elmer 3200: OS/32
Memory Required: 5.1M bytes
Source Language: PL/M-86, Assembler
Source Code Available: No
Purchase Terms: Purchase (license); Rental - $12,000
Number Installed to Date: 20
Date First Installed: June 1980
(See Vendor Profile Page V-5)

CAP INFORMATION SYSTEMS
TRANSIT INFORMATION TRANSFER SERVICES
Additional Product Classification: Communications/TP Monitors
Specific Application: Communication Betwen Computers Connected By Racal-Milgo's Planet
System Requirements: DEC PDP-11; RSX-11M; DEC VAX: VMS
Memory Required: 50.0K bytes
Source Language: C, Assembler
Purchase Terms: Purchase (license)

CARNEY ASSOCIATES, INC.
MSI/TELXON RECEIVE
Additional Product Classification: Communications/TP Monitors
Specific Application: Receive Data from Hand-Held Entry Devices to Computer
System Requirements: IBM Series/1, EDX
Memory Required: 64.0K bytes
Source Language: EDX - Series/1
Source Code Available: No
Purchase Terms: Purchase (license) - $3,000
Number Installed to Date: 4
(See Vendor Profile Page V-5)

CENTURY ANALYSIS, INC.
BOSS-3
Additional Product Classification: Communications/TP Monitors
Specific Application: Transaction Processor, Data-Entry-Monitor and On-Line Program Development System for NCR Mainframe
System Requirements: NCR, VRX
Memory Required: 256.0K bytes
Source Language: Cobol, Next 3
Source Code Available: No
Purchase Terms: Purchase (license) - $12,000
Number Installed to Date: 500
Date First Installed: September 1977
(See Vendor Profile Page V-5)

CINCOM SYSTEMS, INC.
ENVIRON/1
Additional Product Classification: Communications/TP Monitors
Specific Application: On-Line Teleprocessing Communication Monitor
System Requirements: IBM: DOS, EDOS, OS, MVS
Source Language: Cobol
Source Code Available: No
Purchase Terms: Purchase (license) - $59,400
(See Vendor Profile Page V-5)

CONNETWORK
C-N-COMM MICRO/MAINFRAME COMMUNICATIONS
Additional Product Classification: Communications/TP Monitors
Specific Application: Permits The IBM PC to Upload and Download from An IBM Mainframe, Special Error Checking Protocol Insures Data Integrity
System Requirements: IBM PC, MS-DOS
Memory Required: 128.0K bytes
Source Language: Compiled Basic
Purchase Terms: Purchase (license) - $400
Date First Installed: June 1983
(See Vendor Profile Page V-5)

CORE CORP.
TELECOMMUNICATIONS
Additional Product Classification: Communications/TP Monitors
Specific Application: Communicates With Service Bureau for Inquiry and Input
Specific Industry: Banking/Financial
System Requirements: Wang 2200
Memory Required: 32.0K bytes
Source Language: Basic
Source Code Available: No
Purchase Terms: Purchase (license) - $2,500
Number Installed to Date: 18
(See Vendor Profile Page V-5)

COSMI PRO ASSOCIATES
NAS (NETWORK ACCESS SYSTEM)
Additional Product Classification: Communications/TP Monitors
Specific Application: X.25 Support 3705
System Requirements: IBM 3705, VS; IBM 4705, MVS, VM, MVT
Memory Required: 64.0K bytes
Source Language: Assembler
Purchase Terms: Lease
Number Installed to Date: 200
Date First Installed: 1977
(See Vendor Profile Page V-6)

COSMI PRO ASSOCIATES
PP01
Additional Product Classification: Communications/TP Monitors
Specific Application: Automatic 3Quad Select
System Requirements: IBM 3705: VM, IBM 4705: MVS, VS, MVT
Memory Required: 48.0K bytes
Source Language: Assembler
Source Code Available: Yes
Purchase Terms: Lease
Number Installed to Date: 25
Date First Installed: 1973.

COSMI PRO ASSOCIATES
PP02
Additional Product Classification: Communications/TP Monitors
Specific Application: Code Conversion (ASCII to 2741)
System Requirements: IBM 3705: VM; IBM 4705: MVS, VS, MVT
Memory Required: 48.0K bytes
Source Language: Assembler
Purchase Terms: Lease
Number Installed to Date: 25
Date First Installed: 1973

COSMI PRO ASSOCIATES
PP03
Additional Product Classification: Communications/TP Monitors
Specific Application: PP01 and PP02 Combined
System Requirements: IBM 3705: VS, IBM 4705: MVS, VM, MVT
Memory Required: 48.0K bytes
Source Language: Assembler
Purchase Terms: Lease
Number Installed to Date: 25
Date First Installed: September 1973

COSMI PRO ASSOCIATES
PP04
Additional Product Classification: Communications/TP Monitors
Specific Application: Terminal Switching Plus PP03 Features
System Requirements: IBM 3705: VS, IBM 4705: MVS, VM, MVT
Memory Required: 48.0K bytes
Source Language: Assembler
Purchase Terms: Lease
Number Installed to Date: 75
Date First Installed: 1983

COSMI PRO ASSOCIATES
VLSW (VIRTUAL LINE SWITCH)
Additional Product Classification: Communications/TP Monitors
Specific Application: Switch Between EP and NPP (PP01-PP04 Integrated)
System Requirements: IBM 3705, VS, IBM 4705, MVS, VM, MVT
Memory Required: 256.0K bytes
Source Language: Assembler
Source Code Available: No
Purchase Terms: Lease
Number Installed to Date: 27
Date First Installed: 1977

COMPION CORP.
ACCESS
Additional Product Classification: Communications/TP Monitors
Specific Application: Network Communications Package That Provides Network Protocol for Interconnecting Computers
System Requirements: DEC VAX, VMS
Source Language: C
Purchase Terms: Purchase (license) - $15,000
Number Installed to Date: 25
Date First Installed: 1982
(See Vendor Profile Page V-6)

COSSPU-SRAM
COSCOM
Additional Product Classification: Communications/TP Monitors
Specific Application: Computer Communication and Terminal Emulator
System Requirements: Osborne: CP/M; Kaypro-II: CP/M, Xerox 820: CP/M
Memory Required: 12.0K bytes
Source Language: Assembly
Source Code Available: No
Purchase Terms: Purchase (license) - $95
Date First Installed: February 1982
(See Vendor Profile Page V-6)

COSSPU-SRAM
CPMCPM
Additional Product Classification: Communications/TP Monitors
Specific Application: File Transfer Between Computers
System Requirements: Osborne: CP/M; Xerox 820: CP/M; Kaypro-II: CP/M
Memory Required: 8.0K bytes
Source Language: Assembly
Purchase Terms: Purchase (license) - $95
Date First Installed: March 1982

COSP-U-STAFF, INC.
BSWP
Additional Product Classification: Communications/TP Monitors
Specific Application: Bank Switch Interface, Processor Interface, IBM Based Machine With NCR Electronic Funds Transfer Switch
Specific Industry: Banking/Financial
System Requirements: IBM 4300: DOS; IBM 303X: OS, IBM 308X: MVS
Memory Required: 512.0K bytes
Source Language: Assembler, Macro
Source Code Available: No
Purchase Terms: Purchase (license) - $40,000

Number Installed to Date: 4
Date First Installed: 1982
(See Vendor Profile Page V-6)

COMPUTAX SYSTEMS, INC.
BETA DATA COMM HANDLER
Additional Product Classification: Communications/TP Monitors
Specific Application: Data Communications Package
System Requirements: Burroughs B90: CMS; Burroughs B900, B1900
Memory Required: 256.0K bytes
Source Language: Cobol
Source Code Available: No
Purchase Terms: Purchase (license) - $1,500
Date First Installed: 1978
(See Vendor Profile Page V-6)

COMPUTER COMMUNICATIONS SPECIALISTS, INC.
ACCA I
Additional Product Classification: Communications/TP Monitors
Specific Application: Allows Communication With Hand-Held Asynchronous Terminals
System Requirements: IBM Series/1: EDX; IBM PC
Memory Required: 128.0K bytes
Source Language: Assembly
Source Code Available: No
Purchase Terms: Purchase (license)
Number Installed to Date: 90
Date First Installed: 1979
(See Vendor Profile Page V-6)

COMPUTER COMMUNICATIONS SPECIALISTS, INC.
ACCA II
Additional Product Classification: Communications/TP Monitors
Specific Application: Allows Communication With Hand-Held Asynchronous Terminals, POS Devices and CPUs
System Requirements: IBM Series/1: EDX; IBM PC
Memory Required: 128.0K bytes
Source Language: Assembly
Source Code Available: No
Purchase Terms: Purchase (license)
Number Installed to Date: 5
Date First Installed: 1983

COMPUTER CORNER
DCS COMMUNICATIONS CONTROL SYSTEM
Additional Product Classification: Communications/TP Monitors
Specific Application: Asynchronous Data Communications, File Transfer, TErminal Simulation
System Requirements: Osborne 1: CP/M 2.2
Source Language: 8080 Assembly
Source Code Available: No
Purchase Terms: Purchase (license) - $79
Date First Installed: July 1983
(See Vendor Profile Page V-6)

COMPUTER INFORMATION ENTERPRISES
C-P-NETWORK
Additional Product Classification: Communications/TP Monitors
Specific Application: Install Series/1 Using Communication Facilities
System Requirements: IBM: EDX
Memory Required: 22.0K bytes
Source Language: EDL
Purchase Terms: Purchase (license)
Date First Installed: 1983
(See Vendor Profile Page V-7)

COMPUTER INFORMATION ENTERPRISES
CREDIT AUTHORIZATION INTERFACE
Additional Product Classification: Communications/TP Monitors
Specific Application: Protocol Conversion to Interface With Non-IBM Sales Control into IBM CICS Credit Host Package
System Requirements: IBM: EDX
Memory Required: 22.0K bytes
Source Language: EDL
Purchase Terms: Purchase (license)
Date First Installed: November 1982

COMPUTER INFORMATION ENTERPRISES
SWITCH NETWORK SUPPORT
Additional Product Classification: Communications/TP Monitors
Specific Application: Central Support for Series/1 and PC Dial-Up Networks
System Requirements: IBM: EDX
Memory Required: 22.0K bytes
Source Language: EDL
Purchase Terms: Purchase (license) - $20,000
Date First Installed: 1981

COMPUTER INFORMATION ENTERPRISES
TELEPHONE PBX SYSTEM
Additional Product Classification: Communications/TP Monitors
Specific Application: Directive PBX Department Costing and Usage
System Requirements: IBM, EDX
Memory Required: 22.0K bytes
Source Language: EDL
Purchase Terms: Purchase (license)
Date First Installed: 1982

COMPUTER TOOLBOX, INC.
INTELLICOM
Additional Product Classification: Communications/TP Monitors
Specific Application: Terminal Emulator Communication Program
System Requirements: DEC VT180: CP/M; IBM PC-XT: PC-DOS; Northstar Advantage: CP/M
Memory Required: 56.0K bytes
Source Language: C
Purchase Terms: Purchase (license) - $50 to $250
Date First Installed: September 1982
(See Vendor Profile Page V-7)

COMPUTER TOOLBOX, INC.
INTELLICOM VER 1.5
INTELLIGENT COMMUNICATIONS
Additional Product Classification: Communications/TP Monitors
Specific Application: Communications and Terminal Emulation With Data Capture and Transmission Capabilities
System Requirements: DEC VT180: CP/M; Northstar Advantage: CP/M; IBM PC: PC-DOS
Memory Required: 56.0K bytes
Source Language: C
Purchase Terms: Purchase (license) - $49
Number Installed to Date: 200
Date First Installed: September 1982

COMPUTERWARE SOFTWARE UNLIMITED
HAROLD TP MONITOR
Additional Product Classification: Communications/TP Monitors
Specific Application: Generalized TP Monitor
System Requirements: IBM 370 Series: DOS, IBM 4300 Series: DOS/VS, DOS/VSE
Memory Required: 100.0K bytes
Source Language: Assembler
Purchase Terms: Purchase (license); Rental; Lease - $3,000
Number Installed to Date: 40
Date First Installed: June 1980
(See Vendor Profile Page V-7)

COMPUTRAK, INC.
POINT OF SALES COMMUNICATIONS MANAGEMENT
Additional Product Classification: Communications/TP Monitors
Specific Application: Performs Two-Way Communications Operations Between POS Devices and IBM Mainframes
Specific Industry: Retail
System Requirements: IBM: DOS
Memory Required: 256.0K bytes
Source Language: Assembler
Purchase Terms: Purchase (license) - $30,000
Number Installed to Date: 1
Date First Installed: August 1981
(See Vendor Profile Page V-7)

COMPUTRONICS
AUTOBAND (AUTOMATIC BAND RATE)
Additional Product Classification: Communications/TP Monitors
Specific Application: Communications
System Requirements: Prime, Primos
Memory Required: 8.0K bytes
Source Language: Fortran, PMA
Purchase Terms: Purchase (license) - $600
Number Installed to Date: 40
Date First Installed: August 1977
(See Vendor Profile Page V-7)

COMPUTRONICS
NETWORK
Additional Product Classification: Communications/TP Monitors
Specific Application: Communications Utility Allowing the Communication Between Prime Systems With Other Systems
System Requirements: Prime, Primos
Memory Required: 100.0K bytes
Source Language: Fortran
Source Code Available: No
Purchase Terms: Purchase (license) - $1,200
Number Installed to Date: 75
Date First Installed: December 1978

COMPUVIEW PRODUCTS
MODEM-86
TELECOMMUNICATIONS UTILITY
Additional Product Classification: Communications/TP Monitors
Specific Application: Networking OF Microcomputer Mainframe Access
System Requirements: IBM PC, CP/M-86, MS-DOS
Memory Required: 24.0K bytes
Source Language: Assembly
Source Code Available: No
Purchase Terms: Purchase (license) - $89
Number Installed to Date: 80
Date First Installed: October 1982
(See Vendor Profile Page V-7)

COMPUWARE CORP.
CICS-AID
Additional Product Classification: Communications/TP Monitors
Specific Application: Provide English Language Diagnostics for CICS
System Requirements: IBM 370, 43XX, 30XX: MVS, DOS/VS, DOS, VSI
Memory Required: 40.0K bytes
Source Language: Assembler
Source Code Available: No
Purchase Terms: Purchase (license); Lease - $6,000 to $8,000
Number Installed to Date: 10
Date First Installed: May 1983
(See Vendor Profile Page V-7)

CONTEL INFORMATION SYSTEMS
STAR -ELEVEN
Additional Product Classification: Operating Systems, Performance Measurement, Sysytem Resource Management, Communicatsons/TP Monitors
Specific Application: Local-Area Network
System Requirements: DEC PDP. 11: RSTS/E, RT-11; DEC VAX: VMS
Source Language: Fortran, Macro 11
Purchase Terms: Purchase (license) — $4,000
Number Installed to Date: 150
Date First Installed: 1980
(See Vendor Profile Page V-7)

CULLINET SOFTWARE, INC.
INTEGRATED DATABASE MANAGEMENT SYSTEM-DATA
Additional Product Classification: Communications/TP Monitors
Specific Application: Integrated System of Teleprocessing Functions
System Requirements: IBM 360, 370, 30XX
Source Language: Assembler
Source Code Available: No
Purchase Terms: Purchase (license); Rental - $50,000
Number Installed to Date: 328
Date First Installed: June 1978
(See Vendor Profile Page V-8)

GULLNET SOFTWARE, INC.
UNIVERSAL COMMUNICATIONS FACILITY
Additional Product Classification: Communications/TP Monitors
Specific Application: Communications
System Requirements: IBM 360, 370, 30XX
Source Language: Assembler
Source Code Available: No
Purchase Terms: Purchase (license); Rental - $40,000
Number Installed to Date: 301
Date First Installed: January 1981

C & W MICOTEL LTD.
MX 200
Additional Product Classification: Communications/TP Monitors
Specific Application: Store and Forward Message Switching (Conversion)
System Requirements: DEC PDP-11/23, Scama
Memory Required: 128.0K bytes
Source Language: Assembler
Purchase Terms: Purchase (license) - $35,000
Number Installed to Date: 12
(See Vendor Profile Page V-4)

C & W MICOTEL LTD.
MX 200
Additional Product Classification: Communications/TP Monitors
Specific Application: Store & Forward Message Switching (Conversion)
System Requirements: DEC PDP-11/34, Scama
Memory Required: 128.0K bytes
Source Language: Assembler
Purchase Terms: Purchase (license) - $50,000
Number Installed to Date: 46

C & W MICOTEL LTD.
MX 700
Additional Product Classification: Communications/TP Monitors
Specific Application: Store & Forward Message Switching (Conversion)
System Requirements: DEC VAX Series, VMS
Memory Required: 128.0K bytes
Source Language: Assembler, Bliss
Purchase Terms: Purchase (license) - $150,000
Number Installed to Date: 10
Date First Installed: 1980

GYTROL, INC.
CYX-DC DATA COMMUNICATIONS MONITOR
Additional Product Classification: Communications/TP Monitors
Specific Application: Data Communications Management
System Requirements: DEC PDP-11/24: RSX-11M; DEC VAX: VMS
Source Language: Assembler, Cobol
Purchase Terms: Purchase (license); Lease - $30,000 to $30,000
Number Installed to Date: 30
Date First Installed: August 1978
(See Vendor Profile Page V-9)

GYTROL, INC.
CYX-RT/DECNET REACH THROUGH
Additional Product Classification: Communications/TP Monitors
Specific Application: Connect DEC-CYX Systems Via Decnet
System Requirements: DEC VAX, VMS
Source Language: Cobol
Source Code Available: No
Purchase Terms: Purchase (license) - $5,000
Number Installed to Date: 10
Date First Installed: May 1983

GYTROL, INC.
CYX-RT/IBM REACH THROUGH
Additional Product Classification: Communications/TP Monitors
Specific Application: Connect DEC/CYX Systems and IBM Systems
System Requirements: DEC PDP: RSX-11M; DEC VAX: VMS
Source Language: Cobol
Source Code Available: No
Purchase Terms: Purchase (license) - $4,500 to $7,000
Number Installed to Date: 20

GYTROL, INC.
CYX-RT/IBM REACH THROUGH
Additional Product Classification: Communications/TP Monitors
Specific Application: Connect DEC/CYX Systems and IBM Systems
System Requirements: DEC PDP: RSX-11M; DEC VAX: VMS
Source Language: Cobol
Source Code Available: No
Purchase Terms: Purchase (license) - $4,800 to $7,000
Number Installed to Date: 20

GYTROL, INC.
CYX-TRANSACTION PROCESSING SYSTEM
Additional Product Classification: DBMS, Communications/TP Monitors
Specific Application: Provides Data Communications Management and Data Base Management for DEC PDP-11 and VAX-Based Systems
System Requirements: DEC PDP-11: RSX-11M; DEC VAX: VMS
Memory Required: 144.0K bytes
Source Language: Assembler, Cobol
Source Code Available: No
Purchase Terms: Purchase (license); Lease - $30,000 to $45,000
Number Installed to Date: 30
Date First Installed: August 1978

DANFORD CORP.
TECTRONICS TERMINAL EMULATOR
Additional Product Classification: Communications/TP Monitors
Specific Application: Terminal Emulator
Specific Industry: Engineering
System Requirements: Apollo, Aegis
Memory Required: 512.0K bytes
Source Language: Fortran
Source Code Available: No
Purchase Terms: Purchase (license) - $1,500
Number Installed to Date: 2
Date First Installed: 1983
(See Vendor Profile Page V-6)

DATA SHEK, INC.
ZIX - TERMINAL CONTROL SYSTEM
Additional Product Classification: Communications/TP Monitors
Specific Application: Manages Terminal and Memory Space
System Requirements: IBM Series/1: EDX
Memory Required: 128.0K bytes
Source Language: EDL, Assembly
Source Code Available: No
Purchase Terms: Purchase (license) - $5,000
Number Installed to Date: 3
Date First Installed: April 1983
(See Vendor Profile Page V-6)

DATALEX CO.
PASSPORT-MICRO-TO HOST COMPUTER
Additional Product Classification: Communications/TP Monitors
Specific Application: Communications Package Micro to Host
System Requirements: IBM; HP 200, UCSD-p System; TI Professional: PC-DOS, CP/M 86
Memory Required: 128.0K bytes
Source Language: Pascal
Purchase Terms: Purchase (license)
Number Installed to Date: 100
Date First Installed: May 1983
(See Vendor Profile Page V-6)

DATAMARK SYSTEMS, INC.
IBM CHANNEL CONTROL UNIT EMULATOR
Additional Product Classification: Data/File Management, Program Generators/Aids/Application Development Tools, Communications/TP Monitors
Specific Application: Front End, Networking, Satellite Communications
Memory Required: 64.0K bytes
Source Language: Assembler
Purchase Terms: Purchase (license); Rental; Lease - $5,000
Number Installed to Date: 50
Date First Installed: 1977
(See Vendor Profile Page V-6)

DATAMARK SYSTEMS, INC.
LOCAL HIGH-SPEED DATA LINK
Additional Product Classification: Communications/TP Monitors
Specific Application: Local-Area Network High-Speed Data Link
Memory Required: 64.0K bytes
Source Language: Assembler
Purchase Terms: Purchase (license); Rental; Lease - $2,000 to $5,000
Number Installed to Date: 28
Date First Installed: February 1981

DATAPOINT CORP.
ARC
Additional Product Classification: Communications/TP Monitors
Specific Application: Local-Area Network Sector Server Software
System Requirements: Datapoint 5500, 6600, 3600: DOS
Memory Required: 128.0K bytes
Source Language: Assembler
Purchase Terms: Purchase (license) - $1,500
Number Installed to Date: 5,000
(See Vendor Profile Page V-9)

DATAPOINT CORP.
CHANNEL PRODUCTS DC10, CHOUR, MLCI
Additional Product Classification: Communications/TP Monitors
Specific Application: Direct Attachment to IBM Compatible-Byte Multiplexer Channel for Information Transfer to and from IBM to PCM Host
System Requirements: Datapoint 6600: DOS
Memory Required: 128.0K bytes
Source Language: Assembler
Source Code Available: No
Purchase Terms: Purchase (license) - $1,500

DATASOFT, INC.
TELE-TALK
Additional Product Classification: Communications/TP Monitors
Specific Application: Home Communications
Specific Industry: Home
System Requirements: Atari
Source Code Available: No
Purchase Terms: Purchase (license) - $49
Number Installed to Date: 9,000
Date First Installed: 1982
(See Vendor Profile Page V-9)

DATA SYSTEMS OF BATON ROUGE
BLAST
Additional Product Classification: Communications/TP Monitors
Specific Application: Computer to Computer Communication Software Package
System Requirements: DG; Apple II, CP/M; IBM PC, MS-DOS; DEC VAX, VMS
Memory Required: 48.0K bytes
Source Language: Assembly
Source Code Available: No
Purchase Terms: Purchase (license) - $250 to $1,395
Number Installed to Date: 200
Date First Installed: 1980
(See Vendor Profile Page V-9)

DATA TECHNOLOGY INDUSTRIES
CONTE
Additional Product Classification: Communications/TP Monitors
Specific Application: Communications
Purchase Terms: Purchase (license); Lease - $175
(See Vendor Profile Page V-9)

THE DATELEX CO., INC.
PASSPORTS SYSTEM
Additional Product Classification: Communications/TP Monitors

Software

Specific Application: Communication System Between Micros and Mainframes
Specific Industry: Fortune 1000
System Requirements: IBM PC, UCSD; HP 125; DEC Rainbow
Memory Required: 128.0K bytes
Source Language: Pascal
Purchase Terms: Purchase (license) - $500
Number Installed to Date: 1,000
Date First Installed: 1981
(See Vendor Profile Page V-9)

BCA/TAC
E-78
Additional Product Classification: Communications/TP Monitors
Specific Application: File Transfer Package
System Requirements: IBM PC: DOS 1.1/2.0, MDS TSO; IBM; VM
Memory Required: 128.0K bytes
Source Language: Assembler, C
Source Code Available: Yes
Purchase Terms: Purchase (license)
Number Installed to Date: 20,000
Date First Installed: December 1982
(See Vendor Profile Page V-10)

BCA/TAC
FT78
Additional Product Classification: Communications/TP Monitors
Specific Application: Allows Text File Transfer
System Requirements: IBM PC, MS-DOS; IBM 4300, VM, MVS
Memory Required: 128.0K bytes
Source Language: C
Purchase Terms: Purchase (license) - $1,150
Number Installed to Date: 10,000
Date First Installed: September 1983

BCA/TAC
IRMA INTERFACE SOFTWARE
Additional Product Classification: Communications/TP Monitors
Specific Application: Allows You to Talk from One Host Through IBM 3274/76 Control to IBM PC
System Requirements: IBM PC: PC-DOS
Memory Required: 64.0K bytes
Source Language: Assembler
Purchase Terms: Purchase (license) - $1,195
Number Installed to Date: 1,000
Date First Installed: 1982

BISARO SOFTWARE SYSTEMS, INC.
AUTOMATIC NETWORKING OPTION
Additional Product Classification: Communications/TP Monitors
Specific Application: Automatic Networking
Specific Industry: Retail
System Requirements: IBM System/34, System/36
Memory Required: 96.0K bytes
Source Language: RPG-II
Purchase Terms: Purchase (license) - $5,000
Date First Installed: August 1982
(See Vendor Profile Page V-10)

DELTA SYSTEMS, INC.
WHITE BOX DOWNLOADER
Additional Product Classification: Communications/TP Monitors
Specific Application: Allows 2 Computers to Send/Receive Data from Disk to Disk
System Requirements: ICL System 10: DMS 2; ICL System 25: DMS 3
Source Language: Assembler
Source Code Available: No
Purchase Terms: Lease
Number Installed to Date: 100
Date First Installed: March 1983
(See Vendor Profile Page V-10)

THE DESTEK GROUP
CENTRAL RESOURCE SERVER CRS VERSION 1
Additional Product Classification: Communications/TP Monitors
Specific Application: Resource Sharing Software for Unix Local-Area Network Applications
System Requirements: CP/M, PC-DOS, MS-DOS, Unix
Memory Required: 25.0K bytes
Source Language: C
Purchase Terms: Purchase (license) - $500
Number Installed to Date: 15
Date First Installed: May 1983
(See Vendor Profile Page V-10)

THE DESTEK GROUP
LOCAL-AREA NETWORK OPERATING SERVER
Additional Product Classification: Communications/TP Monitors
Specific Application: Local-Area Network Software for CP/M, PC-DOS, MS-DOS, Unix
System Requirements: CP/M, PC-DOS, MS-DOS, Unix
Memory Required: 8.0K bytes
Source Language: C, Assembler
Purchase Terms: Purchase (license) - $100
Number Installed to Date: 50
Date First Installed: May 1983

D.G.M.
SOFTWARE HANDLER
Additional Product Classification: Communications/TP Monitors
Specific Application: Reads Data Out Of Cash Register, Creates File on IBM
Specific Industry: Retail
System Requirements: IBM PC, PC-DOS
Memory Required: 64.0K bytes
Source Language: Basic
Purchase Terms: Purchase (license) - $99
Number Installed to Date: 50
Date First Installed: March 1982
(See Vendor Profile Page V-9)

DILKS CO., INC.
DEC DV11 SYNCHRONOUS COMMUNICATIONS HANDLER
Additional Product Classification: Communications/TP Monitors
Specific Application: Full Polling Capability With A Priority Output Scheme
System Requirements: DEC PDP-11: DEC VAX, VMS
Memory Required: 12.0K bytes
Source Language: Fortran 77, Assembly
Purchase Terms: Purchase (license); Rental; Lease
Number Installed to Date: 1
Date First Installed: September 1982
(See Vendor Profile Page V-10)

DIVELBISS CORP.
SINGLE BIT HEXADECIMAL SYSTEM
Additional Product Classification: Communications/TP Monitors
Specific Application: Programmable Controller System Software
System Requirements: Divelbiss
Memory Required: 2.0K bytes
Source Code Available: No
Purchase Terms: Purchase (license); Rental - $250
Number Installed to Date: 1,000
Date First Installed: June 1982
(See Vendor Profile Page V-10)

D. L. MAGGINI, ENGINEERING REMOTT
Additional Product Classification: Communications/TP Monitors
Specific Application: Send Or Receive Source Or Save File from One Computer to Another
System Requirements: DEC, RT-11, DEC, RSX-11
Memory Required: 16.0K bytes
Source Language: Macro
Source Code Available: No
Purchase Terms: Purchase (license) - $450
Number Installed to Date: 20
Date First Installed: 1978
(See Vendor Profile Page V-09)

DMW GROUP
ANDMS ADVANCED NETWORK DESIGN
Additional Product Classification: Communications/TP Monitors
Specific Application: Design of Banking (ATM) and Retail (POS) Networks
Specific Industry: Retail, Banking/Financial
System Requirements: IBM 370, 30XX, 43XX, MVS, TSO, CMS; DEC VAX; Amdahl 470, 5860
Memory Required: 400.0K bytes
Source Language: Fortran
Purchase Terms: Lease; Time-Sharing - $12,000
Number Installed to Date: 2
Date First Installed: January 1979
(See Vendor Profile Page V-11)

DMW GROUP
NDMS NETWORK DESIGN AND MANAGEMENT SYSTEM
Additional Product Classification: Communications/TP Monitors
Specific Application: Design Management Reporting and Optimization OF Multistage, Multipoint Data Communications Networks
System Requirements: IBM 360, 370, 30XX, MVS, TSO, CMS, DEC VAX, VMS; Amdahl 470, 5860
Memory Required: 160.0K bytes
Source Language: Fortran
Purchase Terms: Lease; Time-sharing - $6,500
Date First Installed: January 1977

DMW GROUP
NETWORKER
Additional Product Classification: Communications/TP Monitors
Specific Application: Design of Data Communications Networks
System Requirements: IBM 370, 30XX, 43XX, MVS, TSO, CMS; DEC VAX, VMS; Amdahl
Memory Required: 300.0K bytes
Source Language: Fortran, Cobol
Source Code Available: No
Purchase Terms: Lease; Time-sharing - $10,000 to $50,000
Number Installed to Date: 3
Date First Installed: November 1983

DMW GROUP
TELECOST
Additional Product Classification: Communications/TP Monitors
Specific Application: Telecommunications Chargeback and Allocation
System Requirements: IBM 360, 370, 30XX, 43X: TSO, CMS, MVS; DEC VAX: VMS; Amdahl 470, 5860
Memory Required: 200.0K bytes
Source Language: Cobol
Purchase Terms: Lease; Time-sharing - $22,000
Number Installed to Date: 25
Date First Installed: January 1980

DMW GROUP
TOP TELETRAFFIC OPTIMIZER PROGRAM
Additional Product Classification: Communications/TP Monitors
Specific Application: Reduces Long Distance Usage Costs by Reconfiguration of The Facilities and Services
System Requirements: IBM 360, 370, 30XX, 43X: MVS, TSO, CMS; DEC VAX: VMS; Amdahl 470, 5860
Memory Required: 300.0K bytes
Source Language: Cobol, Fortran
Purchase Terms: Lease; Time-sharing - $30,000 to $40,000
Number Installed to Date: 10
Date First Installed: January 1979

D&N MICRO PRODUCTS, INC.
DISK TRANSFER
Additional Product Classification: Communications/TP Monitors
Specific Application: Utility Program to Transfer OSI CP/M Format Disk to Standard CP/M IBM 3740 Format
System Requirements: Ohio Scientific: CP/M 2.2
Memory Required: 48.0K bytes
Source Language: Assembler
Source Code Available: No
Purchase Terms: Purchase (license) - $100
Date First Installed: January 1983

DON'T ASK COMPUTER SOFTWARE
TELETARI
Additional Product Classification: Communications/TP Monitors

Specific Application: Telecommunications Package
System Requirements: Atari: DOS
Memory Required: 32.0K bytes
Source Language: Machine
Source Code Available: No
Purchase Terms: Purchase (license) - $40
Date First Installed: January 1983
(See Vendor Profile Page V-11)

DUXBURY SYSTEMS, INC.
METERED UTILITY MONITORING SYSTEM
Additional Product Classification: Communications/TP Monitors
Specific Application: Communications
System Requirements: Northstar Horizon: DOS; Northstar Advantage: DOS
Memory Required: 36.0K bytes
Source Language: Northstar Basic
Source Code Available: No
Purchase Terms: Purchase (license) - $175
Number Installed to Date: 5
Date First Installed: January 1982
(See Vendor Profile Page V-11)

DYNAMIC MICROPROCESSOR ASSOCIATES
ASCOM
Additional Product Classification: Communications/TP Monitors
Specific Application: Asynchronous Communication Package
System Requirements: CP/M, CP/M 86, MS-DOS, PC-DOS
Memory Required: 32.0K bytes
Source Language: Assembly
Source Code Available: No
Purchase Terms: Purchase (license) - $175
Number Installed to Date: 5,000
Date First Installed: January 1979
(See Vendor Profile Page V-11)

DYNAMIC SCIENCES
COSMO
Additional Product Classification: Communications/TP Monitors
Specific Application: Complete Monitoring and Control System
System Requirements: DEC PDP-11, RSX-11M; HP, RTE; DEC PDP-11, RSTS/E
Memory Required: 32.0K bytes
Source Language: Fortran
Purchase Terms: Purchase (license)
Number Installed to Date: 5
Date First Installed: 1979
(See Vendor Profile Page V-11)

EFT COMPUTER SYSTEMS, INC.
MESSAGE-SWITCHING AND CONTROL SYSTEM
Additional Product Classification: Communications/TP Monitors
Specific Application: Message Switching and Control System
Specific Industry: Banking/Financial
System Requirements: NCR 9040, 9050, 9300; IBM System/34; IBM System/36; IBM System/38
Memory Required: 128.0K bytes
Source Language: Cobol
Purchase Terms: Purchase (license)
Date First Installed: 1983
(See Vendor Profile Page V-11)

EFT COMPUTER SYSTEMS, INC.
PAYMENT AND CONTROL SYSTEM PACS
Additional Product Classification: Banking, Data/File Management, Communications/TP Monitors
Specific Application: Paying and Receiving Money Transfers
Specific Industry: Banking/Financial
System Requirements: NCR 9040, 9050, 9300; IBM System/36
Memory Required: 256.0K bytes
Source Language: Cobol
Purchase Terms: Purchase (license) - $60,000
Number Installed to Date: 4
Date First Installed: 1977

ESCA CORP.
FAIL OVER PACKAGE
Additional Product Classification: Communications/TP Monitors, Redundant CPUs
Specific Application: Redundant CPUs Networking Package
Specific Industry: Engineering, Scientific
System Requirements: DEC VAX-11/780, VMS; DEC VAX-11/750, VMS; DEC VAX-11/782, VMS
Source Language: Fortran, Macro
Purchase Terms: Purchase (license) - $60,000
Number Installed to Date: 5
Date First Installed: 1983
(See Vendor Profile Page V-11)

EVANS GRIFFITHS AND HART, INC.
BSC/DV
Additional Product Classification: Communications/TP Monitors
Specific Application: Driver for DEC PDP-11 Handles Most BSC-Based Protocols
System Requirements: DEC PDP, RSTS/E
Memory Required: 88.0K bytes
Source Language: Macro-11
Purchase Terms: Purchase (license) - $5,000
Number Installed to Date: 9
Date First Installed: 1978
(See Vendor Profile Page V-11)

EVANS GRIFFITHS AND HART, INC.
COLINK
Additional Product Classification: Communications/TP Monitors
Specific Application: Links Two RSTS/E Systems
System Requirements: DEC PDP-11, RSTS/E
Memory Required: 96.0K bytes
Source Language: Basic
Purchase Terms: Purchase (license) - $1,250
Date First Installed: 1979

EVANS GRIFFITHS AND HART, INC.
DEALUP
Additional Product Classification: Communications/TP Monitors
Specific Application: Link for RSTS/E System to A Remote Computer Using Asynchronous Terminal Line
System Requirements: DEC PDP, RSTS/E
Memory Required: 96.0K bytes
Source Language: Basic
Number Installed to Date: 59
Date First Installed: 1979

EVANS GRIFFITHS AND HART, INC.
TAM
Additional Product Classification: Communications/TP Monitors
Specific Application: Transaction-Processing Front End for the PDP-11
System Requirements: DEC PDP-11: RSTS/E, RSX-11M; DEC VAX, VMS
Memory Required: 96.0K bytes
Source Language: Basic, Macro-11
Purchase Terms: Purchase (license) - $6,000
Number Installed to Date: 93
Date First Installed: 1978

EVERGREEN CONSULTING, INC.
QUICK-TUBE
Additional Product Classification: Communications/TP Monitors
Specific Application: TSO
System Requirements: IBM: OS/MVS
Source Language: Assembler
Purchase Terms: Rental; Lease - $650
Number Installed to Date: 120
Date First Installed: May 1978
(See Vendor Profile Page V-12)

EXEC SOFTWARE, INC.
TERMEXEC
Additional Product Classification: Communications/TP Monitors
Specific Application: Allows An Apple II+ or Apple IIe to Operate As An Intelligent Terminal on A Variety Of Host Systems
System Requirements: Apple II+: Apple-DOS, Apple IIE: Pro-DOS, DOS 3.3
Memory Required: 48.0K bytes
Source Language: Assembly
Purchase Terms: Purchase (license) - $60
Number Installed to Date: 200
Date First Installed: January 1983
(See Vendor Profile Page V-12)

FALLON & ASSOCIATES, INC.
STANDARD & CUSTOM MICROBASED COMPUTER SUPPLY
Additional Product Classification: Communications/TP Monitors
Specific Application: SNA, X.25 DCE, X.25 DTE, IBM 3270, 3780 BSC, Asynchronous, X-3, Asynchronous VIP 7700, IBM 3270 Emulation Protocols
Specific Industry: Telecommunications
Source Language: Pascal, Assembler
Purchase Terms: Purchase (license)
Number Installed to Date: 200
Date First Installed: May 1981
(See Vendor Profile Page V-12)

FERGX MICROSYSTEMS, INC.
LOGON
Additional Product Classification: Communications/TP Monitors
Specific Application: Communication Package Allows Storage Of Configurations and Phone Numbers
Specific Industry: Banking/Financial
System Requirements: IBM PC, UCSD-P System: MS-DOS, Apple II: Apple-DOS
Memory Required: 128.0K bytes
Source Language: Pascal
Source Code Available: No
Purchase Terms: Purchase (license) - $150
Number Installed to Date: 500
(See Vendor Profile Page V-12)

FIRSSKIM COMPUTER CO.
COM/1
Additional Product Classification: Communications/TP Monitors
Specific Application: File Transfer With IBM 2780 OR 3780 Compatible Devices
System Requirements: IBM Series/1, EDX
Memory Required: 22.0K bytes
Source Language: EDL
Purchase Terms: Purchase (license) - $2,395
Number Installed to Date: 12
Date First Installed: 1976
(See Vendor Profile Page V-12)

FORMULA CONSULTANTS, INC.
MESSAGE MANAGEMENT SYSTEM MMS-110
Additional Product Classification: Communications/TP Monitors
Specific Application: Sends Messages from Terminal to Terminal
System Requirements: Sperry 1100, S 1100
Source Language: Cobol, Assembler
Purchase Terms: Purchase (license); Rental; Lease - $30,000
Date First Installed: July 1980
(See Vendor Profile Page V-12)

FORMULA CONSULTANTS, INC.
SUPER-SYNCHRONOUS UTS PROTOCOL
Additional Product Classification: Communications/TP Monitors
Specific Application: Sperry Terminal Emulation
System Requirements: Xerox 860: CP/M
Memory Required: 48.0K bytes
Source Language: Assembler
Purchase Terms: Purchase (license) - $800
Number Installed to Date: 10
Date First Installed: June 1982

GAMMA TECHNOLOGY, INC.
GAMMA TECHNOLOGY WORKSTATIONS
Additional Product Classification: Communications/TP Monitors

Specific Application: Protocol Emulation
System Requirements: DG: AOS/VS, DG MV Series: RTOS; DG Nova: RDOS
Memory Required: 32.0K bytes
Source Language: Assembly for TV
Source Code Available: Yes
Purchase Terms: Purchase (license) - $3,000 to $4,000
Number Installed to Date: 429
Date First Installed: 1976
(See Vendor Profile Page V-12)

GAMMA TECHNOLOGY, INC.
GT70 CENTRAL SITE GT70
Additional Product Classification: Communications/TP Monitors
Specific Application: 3270 Communication
System Requirements: DG Eclipse: AOS; DG Nova, R-DOS; RTOS
Memory Required: 32.0K bytes
Source Language: Assembly for TV
Purchase Terms: Purchase (license) - $4,000 to $6,500
Number Installed to Date: 5
Date First Installed: 1976

GAYLORD BROS., INC.
DIAL-UP INQUIRY
Additional Product Classification: Communications/TP Monitors
Specific Application: One or More Dial-up Ports to Exist On the GS-1000, 2000
Specific Industry: Library
System Requirements: Apple II+
Memory Required: 48.0K bytes
Source Language: Basic
Purchase Terms: Purchase (license) - $5,000
(See Vendor Profile Page V-12)

GAYLORD BROS., INC.
GS-000 MICRO COMPUTER NETWORK SYSTEM
Additional Product Classification: Communications/TP Monitors
Specific Application: Has All Features Of GS-1000, Combines On-Line and Stand-Alone Processing
System Requirements: Apple II+
Memory Required: 48.0K bytes
Source Language: Basic
Purchase Terms: Purchase (license)

GAYLORD BROS., INC.
OCLC INTERFACE
Additional Product Classification: Communications/TP Monitors
Specific Application: Direct Transfer of an Edited Marc II Record On The OCLC
Specific Industry: Library
System Requirements: Apple II+
Memory Required: 48.0K bytes
Source Language: Basic
Purchase Terms: Purchase (license) - $5,000

GAYLORD BROS., INC.
VIS TERM
Additional Product Classification: Communications/TP Monitors
Specific Application: Enables Apple II to Communicate With Larger Computers or Other PCs
System Requirements: Apple II+
Memory Required: 48.0K bytes
Source Language: Basic
Purchase Terms: Purchase (license) - $100
Date First Installed: 1900

GEJAC, INC.
HASP VERSION 3
Additional Product Classification: Communications/TP Monitors
Specific Application: Communications
System Requirements: DEC VAX-11: VMS; DEC PDP-11: RSX, IAS, RT-11
Memory Required: 16.0K bytes
Source Language: Assembler, Fortran
Source Code Available: Yes
Purchase Terms: Purchase (license); Rental; Lease - $3,500 to $6,500
Number Installed to Date: 900
Date First Installed: January 1978
(See Vendor Profile Page V-12)

GENASYS CORP.
TELIOS
Additional Product Classification: Communications/TP Monitors
Specific Application: Asynronous Telecommunications Handler for IBM PC
System Requirements: IBM PC: DOS 2.0
Memory Required: 96.0K bytes
Source Language: Assembler
Purchase Terms: Purchase (license)
Number Installed to Date: 50
Date First Installed: January 1905
(See Vendor Profile Page V-12)

GENERAL DIGITAL INDUSTRIES, INC.
COMPAT/200
Additional Product Classification: Communications/TP Monitors
Specific Application: User 200 Workstation Emulator for Communication With CDC Cyber Systems
System Requirements: DEC: Unix
Memory Required: 256.0K bytes
Source Language: C
Purchase Terms: Purchase (license) - $3,000
Number Installed to Date: 10
Date First Installed: January 1982
(See Vendor Profile Page V-13)

GENERAL ELECTRIC INFORMATION
TS2.0
Additional Product Classification: Communications/TP Monitors
Specific Application: Communication Software
System Requirements: IBM PC: MS-DOS
Memory Required: 100 0K bytes
Source Language: Fortran
Purchase Terms: Purchase (license) - $250
Date First Installed: October 1982
(See Vendor Profile Page V-13)

GEORGE W. HALLAHAN & CO., INC.
XCHANGE-11
Additional Product Classification: Communications/TP Monitors
Specific Application: Micro Computer Communication and Networking
System Requirements: DEC PDP-11: RSTS/E; DEC VAX: RSX-11M
Source Language: Basic
Source Code Available: Yes
Purchase Terms: Purchase (license) - $99,500
Number Installed to Date: 28
Date First Installed: May 1982
(See Vendor Profile Page V-13)

G & G ENGINEERING
MODEM 8-18
Additional Product Classification: Communications/TP Monitors
Specific Application: Telecommunication Language for MP/M 86 System and for Concurrent CP/M 86
System Requirements: Compupro S100: CP/M, MP/M
Memory Required: 128.0K bytes
Source Language: C
Source Code Available: No
Purchase Terms: Purchase (license) - $295
Number Installed to Date: 85
Date First Installed: January 1983
(See Vendor Profile Page V-12)

GLENN A. BARBER AND ASSOCIATES
TSX-NET
Additional Product Classification: Communications/TP Monitors
Specific Application: Networking Package
System Requirements: DEC, RT11, TSX Plus, RSX 11, DEC VAX: VMS
Memory Required: 64.0K bytes
Purchase Terms: Purchase (license)
(See Vendor Profile Page V-13)

GOULD, INC.
HASP REMOTE WORKSTATION
Additional Product Classification: Communications/TP Monitors
Specific Application: Remote Job Entry
System Requirements: Concept/32, MPX-32
Memory Required: 400.0K bytes
Purchase Terms: Purchase (license) - $3,000
(See Vendor Profile Page V-13)

GRANADA SYSTEMS DESIGN, INC.
INTERFACE
Additional Product Classification: Communications/TP Monitors
Specific Application: Allows Host to Communicate With Multiple Hosts
Specific Industry: Banking/Financial
System Requirements: IBM Series/1, EDX
Memory Required: 96.0K bytes
Source Language: EDL
Number Installed to Date: 6
Date First Installed: July 1982
(See Vendor Profile Page V-13)

GRANADA SYSTEMS DESIGN, INC.
TELDEAR
Additional Product Classification: Communications/TP Monitors
Specific Application: Telephone Data Entry and Audio Response, Touch-Tone, Order Entry, Pay-By-Phone Sales Order Entry
Specific Industry: Wholesale/Distribution, Banking/Financial
System Requirements: IBM Series/1: EDX; IBM System/36, System/38: SSP
Memory Required: 96.0K bytes
Source Language: EDL
Purchase Terms: Purchase (license) - $12,500
Number Installed to Date: 6
Date First Installed: June 1981

GRAPHIC SOFTWARE SYSTEMS
GSS-TERMINAL
Additional Product Classification: Communications/TP Monitors
Specific Application: Terminal Emulation (Graphics Terminal from Micro)
System Requirements: IBM PC: MS-DOS, Unix
Memory Required: 128.0K bytes
Source Language: C
Purchase Terms: Purchase (license)
Number Installed to Date: 2,500
Date First Installed: August 1983
(See Vendor Profile Page V-13)

GUILD, INC.
THE GUILD CATALYST
Additional Product Classification: Communications/TP Monitors
Specific Application: Totally Portable Across Hardware, Enables Networking Between Micros, Minis and Mainframes
System Requirements: Motorola 68000: Catalyst; Zilog 8000: Catalyst; DEC: Catalyst; Sperry 1100: Catalyst
Memory Required: 64.0K bytes
Source Language: Extended Pascal
Purchase Terms: Purchase (license) - $250,000
Number Installed to Date: 6
Date First Installed: March 1982
(See Vendor Profile Page V-13)

GUNN ENTERPRISES, INC.
CUSTOM CDOS I/O DRIVERS
Additional Product Classification: Communications/TP Monitors
Specific Application: Terminal Interface
System Requirements: Commmox: C-DOS
Memory Required: 64.0K bytes
Source Language: Assemble
Purchase Terms: Purchase (license) - $186
Number Installed to Date: 300-
Date First Installed: 1977
(See Vendor Profile Page V-13)

GUNN ENTERPRISES, INC.
MODEM COMMUNICATIONS FOR CROMEMCO
Additional Product Classification: Communications/TP Monitors
Specific Application: Allows Transfer of Programs to and from Cromix

System Requirements: Cromemco: Cromix
Memory Required: 128.0K bytes
Source Language: Assembly
Source Code Available: No
Purchase Terms: Purchase (license) - $595
Number Installed to Date: 40
Date First Installed: 1982

H & A COMPUTER SYSTEMS
RSS-REMOTE SERIES 1 SERVICES
Additional Product Classification: Communications/TP Monitors
Specific Application: Remote Operation and Service
System Requirements: IBM Series/1, EOX
Memory Required: 9.0K bytes
Source Language: EDL
Source Code Available: No
Purchase Terms: Purchase (license) - $3,500
Number Installed to Date: 10
Date First Installed: 1982
(See Vendor Profile Page V-13)

HARRIS CORP.
RJE HOST
Additional Product Classification: Communications/TP Monitors
Specific Application: Remote Job Entry
System Requirements: Harris 600, 700, 800: VOS
Purchase Terms: Purchase (license) - $2,600
(See Vendor Profile Page V-14)

HARRIS CORP.
RJE TERMINAL EMULATION
Additional Product Classification: Communications/TP Monitors
Specific Application: Terminal Emulation
System Requirements: Harris 600, 700, 800: VOS

HENSON SYSTEMS, INC.
CRTX
Additional Product Classification: Communications/TP Monitors
Specific Application: Communications
System Requirements: IBM PC: MS-DOS; Columbia: MPC
Memory Required: 42 0K bytes
Source Language: Assembly
Source Code Available: No
Purchase Terms: Purchase (license) - $100
Number Installed to Date: 400
Date First Installed: 1981
(See Vendor Profile Page V-14)

HENSON SYSTEMS, INC.
CRTXE
Additional Product Classification: Communications/TP Monitors
Specific Application: Communications With Terminal Emulation
System Requirements: IBM PC: MS-DOS; Columbia: MPC
Memory Required: 42.0K bytes
Source Language: Assembly
Source Code Available: No
Purchase Terms: Purchase (license) - $250
Number Installed to Date: 200
Date First Installed: 1981

HENSON SYSTEMS, INC.
REMOTE
Additional Product Classification: Communications/TP Monitors
Specific Application: Allows the User to Remotely Execute A CP/M System
System Requirements: CP/M
Source Language: Assembly
Source Code Available: No
Purchase Terms: Purchase (license) - $60
Number Installed to Date: 50
Date First Installed: 1981

HORNE COMPUTER SERVICES
RPSS-REMOTE PRINTER SPOOLING
Additional Product Classification: Communications/TP Monitors
Specific Application: Remote Printer Spooling System
System Requirements: IBM 4300: DOS; IBM 370: CICS
Source Language: Assembler
Source Code Available: No
Purchase Terms: Lease
Number Installed to Date: 12
Date First Installed: 1981
(See Vendor Profile Page V-14)

HOUSTON COMPUTER SERVICES, INC.
OCTACOM/149
Additional Product Classification: Communications/TP Monitors
Specific Application: Intelligent I/O Processor Interfaces with RS-232 Terminals Asyncronously
System Requirements: TI 990: DX-10, D-NOS; TI Professional: MS-DOS
Source Language: Assembler, Pascal
Purchase Terms: Purchase (license) - $2,750
Number Installed to Date: 150
Date First Installed: October 1982
(See Vendor Profile Page V-14)

HOUSTON ENGINEERING RESEARCH CORP.
TDC 2000 DRIVER
Additional Product Classification: Communications/TP Monitors
Specific Application: Communication Driver Between PDP-11 and Honeywell 2000
System Requirements: DEC PDP-11: RSX
Memory Required: 128 0K bytes
Source Language: Fortran
Purchase Terms: Purchase (license) - $4,500
Number Installed to Date: 3
Date First Installed: 1978
(See Vendor Profile Page V-14)

HOWARD W. SAMS & CO., INC.
HELLO CENTRAL!
Additional Product Classification: Communications/TP Monitors
Specific Application: A Terminal Control Program That Allows the User Computer to Talk to Other Computers Over Telephone Lines
System Requirements: Apple IIE; Apple II+; Apple II: DOS
Memory Required: 48.0K bytes
Source Language: Assembly
Purchase Terms: Purchase (license) - $99
(See Vendor Profile Page V-14)

HORSE SOFTWARE
SMART TERMINAL
Additional Product Classification: Communications/TP Monitors
Specific Application: Data Communications VIA RS-231C
System Requirements: TRS-80: TRS-DOS, CP/M
Source Language: Assembler, Delivered Machine
Purchase Terms: Purchase (license) - $75
Number Installed to Date: 400
Date First Installed: January 1980
(See Vendor Profile Page V-14)

HUNTER & READY, INC.
C INTERFACE LIBRARY (HEWLETT PACKARD)
Additional Product Classification: Communications/TP Monitors
Specific Application: Interface Programs Written in HPC to VRTX/68000
System Requirements: Motorola 68000
Source Language: Assembly
Purchase Terms: Purchase (license) - $450
Number Installed to Date: 100
Date First Installed: 1982
(See Vendor Profile Page V-14)

HUNTER & READY, INC.
C INTERFACE LIBRARY (HEWLETT PACKARD)
Additional Product Classification: Communications/TP Monitors
Specific Application: Interface Programs Written in HPC to VRTX/86
System Requirements: Intel 8086
Source Language: Assembly
Purchase Terms: Purchase (license) - $450
Number Installed to Date: 100
Date First Installed: 1982

HUNTER & READY, INC.
C INTERFACE LIBRARY (HEWLETT PACKARD)
Additional Product Classification: Communications/TP Monitors
Specific Application: Interface Programs Written IN HPC to VRTX/8002
System Requirements: Zilog Z8002
Source Language: Assembly
Purchase Terms: Purchase (license) - $450
Number Installed to Date: 100
Date First Installed: 1982

HUNTER & READY, INC.
C INTERFACE LIBRARY (IMT)
Additional Product Classification: Communications/TP Monitors
Specific Application: Interface Programs Written IN MITC to VRTX/68000
System Requirements: Motorola 68000
Source Language: Assembly
Purchase Terms: Purchase (license) - $450
Number Installed to Date: 100
Date First Installed: 1982

HUNTER & READY, INC.
C INTERFACE LIBRARY (MITC)
Additional Product Classification: Communications/TP Monitors
Specific Application: Interface Programs Written in MITC to VRTX/86
System Requirements: Intel 8086
Source Language: Assembly
Purchase Terms: Purchase (license) - $450
Number Installed to Date: 100
Date First Installed: 1982

HUNTER & READY, INC.
C INTERFACE LIBRARY (WHITE SMITHS)
Additional Product Classification: Communications/TP Monitors
Specific Application: Interfaces Programs Written IN White Smiths C to VRTX/68000
System Requirements: Motorola 68000
Source Language: Assembly
Purchase Terms: Purchase (license) - $450
Number Installed to Date: 100
Date First Installed: 1982

HUNTER & READY, INC.
C INTERFACE LIBRARY (WHITE SMITHS)
Additional Product Classification: Communications/TP Monitors
Specific Application: Interfaces Programs Written In White Smiths C to VRTX/8002
System Requirements: Zilog Z8002
Source Language: Assembly
Purchase Terms: Purchase (license) - $450
Number Installed to Date: 100
Date First Installed: 1982

HUNTER & READY, INC.
PASCAL INTERFACE LIBRARY (HEWLETT PACKARD)
Additional Product Classification: Communications/TP Monitors
Specific Application: Interfaces Programs Written In HP Pascal to VRTX/68000
System Requirements: Motorola 68000
Source Language: Assembly
Purchase Terms: Purchase (license) - $450
Number Installed to Date: 100
Date First Installed: 1982

HUNTER & READY, INC.
PASCAL INTERFACE LIBRARY (HEWLETT PACKARD)
Additional Product Classification: Communications/TP Monitors
Specific Application: Interfaces Programs Written IN HP Pascal to VRTX/86
System Requirements: Intel 8086
Source Language: Assembly
Purchase Terms: Purchase (license) - $450

Number Installed to Date: 100
Date First Installed: 1982

HUNTER & READY, INC.
PASCAL INTERFACE LIBRARY (HEWLETT PACKARD)
Additional Product Classification: Communications/TP Monitors
Specific Application: Interfaces Programs Written In HP Pascal to VRTX/8002
System Requirements: Zilog Z8002
Source Language: Assembly
Purchase Terms: Purchase (license) - $450
Number Installed to Date: 100
Date First Installed: 1982

HUNTER & READY, INC.
PL/M INTERFACE LIBRARY
Additional Product Classification: Communications/TP Monitors
Specific Application: Interfaces Programs Written In PL/M to VRTX/86
System Requirements: Intel 8086
Source Language: Assembly
Purchase Terms: Purchase (license) - $450
Number Installed to Date: 100
Date First Installed: 1982

IAS CORP.
GENTERM
Additional Product Classification: Communications/TP Monitors
Specific Application: Comprehensive Asynchronous Communications Package
System Requirements: Apple II: Apple-DOS, CP/M, IBM PC, MS-DOS
Memory Required: 64.0K bytes
Source Language: CP/M Fortran, MS-DOS Assembler
Source Code Available: No
Purchase Terms: Purchase (license) - $79
Number Installed to Date: 1,000
Date First Installed: June 1983
(See Vendor Profile Page V-14)

IBM ASSOCIATES, INC.
IDEACOMM 1200
Additional Product Classification: Communications/TP Monitors
Specific Application: Asynchronous Communications Package
System Requirements: IBM PC, PC-DOS 2.0
Memory Required: 128.0K bytes
Source Language: Assembly, C
Number Installed to Date: 250
Date First Installed: October 1983
(See Vendor Profile Page V-15)

IBM ASSOCIATES, INC.
IDEACOMM 3278
Additional Product Classification: Communications/TP Monitors
Specific Application: Allows An IBM PC to Emulate A 3278
System Requirements: IBM PC, PC-DOS 2.0
Memory Required: 128.0K bytes
Source Language: Assembly, C
Purchase Terms: Purchase (license) - $1,195
Number Installed to Date: 2
Date First Installed: 1983

IBM ASSOCIATES, INC.
IDEANET
Additional Product Classification: Communications/TP Monitors
Specific Application: Allows An IBM PC to Communicate Over Coaxial Cable
System Requirements: IBM PC, PC-DOS 2.0
Memory Required: 128.0K bytes
Source Language: Assembly, C
Purchase Terms: Purchase (license) - $795
Date First Installed: January 1984

IBM ASSOCIATES, INC.
IDEASHARE
Additional Product Classification: Communications/TP Monitors
Specific Application: Allows An IBM PC to Communicate Via An Asynchronous RS-232 Cable
System Requirements: IBM PC, PC-DOS 2.0
Memory Required: 128.0K bytes
Source Language: Assembly, C
Purchase Terms: Purchase (license) - $595
Number Installed to Date: 1
Date First Installed: December 1983

IE SYSTEMS, INC.
ACCULINK
Additional Product Classification: Communications/TP Monitors
Specific Application: Protocol Emulation
System Requirements: IBM: CP/M; Zorox 820: MS-DOS; NEC: PC-DOS; Tandy
Memory Required: 128.0K bytes
Source Language: Assembler
Source Code Available: No
Purchase Terms: Purchase (license) - $245
Number Installed to Date: 1,000
Date First Installed: August 1979
(See Vendor Profile Page V-15)

IE SYSTEMS, INC.
BIS - 3270
Additional Product Classification: Communications/TP Monitors
Specific Application: Protocol Emulation
System Requirements: IBM: CP/M; Zorox 820: MS-DOS; NEC: PC-DOS; Tandy
Memory Required: 128.0K bytes
Source Language: Assembler
Source Code Available: No
Purchase Terms: Purchase (license) - $695
Number Installed to Date: 1,000
Date First Installed: November 1980

IE SYSTEMS, INC.
BIS - 3780
Additional Product Classification: Communications/TP Monitors
Specific Application: Protocol Emulation
System Requirements: IBM: CP/M; Zorox. MS-DOS; NEC: PC-DOS; Tandy
Memory Required: 128.0K bytes
Source Language: Assembler
Source Code Available: No
Purchase Terms: Purchase (license) - $695
Number Installed to Date: 1,000
Date First Installed: January 1979

IE SYSTEMS, INC.
BIS-HASP
Additional Product Classification: Communications/TP Monitors
Specific Application: Protocol Emulation
System Requirements: IBM: CP/M; Zorox 820: MS-DOS; NEC: PC-DOS; Tandy
Memory Required: 128.0K bytes
Source Language: Assembler
Source Code Available: No
Purchase Terms: Purchase (license) - $695
Number Installed to Date: 1,000
Date First Installed: May 1982

IE SYSTEMS, INC.
BIS-3270 VERSION 4.0
Additional Product Classification: Communications/TP Monitors
Specific Application: 3270 Emulation Software for Microcomputers
System Requirements: CP/M, CP/M 86, MS-DOS
Memory Required: 64.0K bytes
Source Language: Assembler
Source Code Available: No
Purchase Terms: Purchase (license) - $695
Number Installed to Date: 900
Date First Installed: November 1980

INDUSTRIAL COMPUTER CORP.
DDCMP 1000
Additional Product Classification: Communications/TP Monitors
Specific Application: Provides DEC to HP 1000 Communication
System Requirements: HP 1000
Memory Required: 64.0K bytes
Source Language: Fortran, Assembler
Source Code Available: No
Purchase Terms: Purchase (license) - $2,500
Number Installed to Date: 5
Date First Installed: January 1983
(See Vendor Profile Page V-15)

INFOMEDIA CORP.
JENNY,
Additional Product Classification: Communications/TP Monitors
Specific Application: Electronic Mail Package
System Requirements: HP 3000: MPE
Source Language: SPL
Source Code Available: No
Purchase Terms: Lease
Number Installed to Date: 10
Date First Installed: 1981
(See Vendor Profile Page V-15)

INFORMATION CONCEPTS, INC.
CICS APPLICATION FILE CONTROL
Additional Product Classification: Communications/TP Monitors
Specific Application: Batch-TO-CICS Communications, Streamlines Restart Activity
System Requirements: IBM 4300: MVS; IBM 30XX: IBM 360; IBM 370
Source Language: Assembler
Purchase Terms: Purchase (license) - $2,500
Number Installed to Date: 76
Date First Installed: 1980
(See Vendor Profile Page V-15)

INFORMATION MANAGEMENT TECHNOLOGIES
DEDICOM
Additional Product Classification: Communications/TP Monitors
Specific Application: Communications Switching Program
System Requirements: DG. Unix, TI; Perkin Elmer
Memory Required: 256.0K bytes
Source Language: C
Purchase Terms: Purchase (license) - $20,000 to $40,000
Number Installed to Date: 20
Date First Installed: September 1982
(See Vendor Profile Page V-15)

THE INFORMATION ORGANIZATION CORP.
OCR (OPTICAL CHARACTER READER) INTERFACE
Additional Product Classification: WP/Text Editing, Communications/TP Monitors
Specific Application: OCR Interface
Specific Industry: Legal
System Requirements: Wang VS
Memory Required: 256.0K bytes
Source Language: Cobol
Source Code Available: No
Purchase Terms: Purchase (license) - $1,000
Number Installed to Date: 20
Date First Installed: May 1980
(See Vendor Profile Page V-15)

THE INFORMATION ORGANIZATION CORP.
WANG VS TO HIGH SPEED PRINTER
Additional Product Classification: Communications/TP Monitors, Spool Printer
Specific Application: Sends Wang WP to High-Speed Printer
System Requirements: Wang VS
Memory Required: 256.0K bytes
Source Language: Cobol
Source Code Available: No
Purchase Terms: Purchase (license) - $4,000
Number Installed to Date: 2
Date First Installed: August 1982

THE INFORMATION ORGANIZATION CORP.
WANG VS TO IBM DISPLAY WRITER
Additional Product Classification: Communications/TP Monitors, Display Writer
Specific Application: Telecommunications Interface Package Translates Wang WP to IBM Display Writer and IBM to Wang
System Requirements: Wang VS

Memory Required: 256.0K bytes
Source Language: Cobol
Source Code Available: No
Purchase Terms: Purchase (license) - $4,000
Number Installed to Date: 2
Date First Installed: May 1982

THE INFORMATION ORGANIZATION CORP.
WANG VS TO OCR INTERFACE
Additional Product Classification: Communications/TP Monitors
Specific Application: Wang VS to OCR Interface
System Requirements: Wang VS
Memory Required: 256.0K bytes
Source Language: Cobol
Source Code Available: No
Purchase Terms: Purchase (license) - $1,000
Number Installed to Date: 23
Date First Installed: May 1980

INFOSERVICES, INC.
INFOCOMM/INFOHOST ANSWER-DB
Additional Product Classification: Communications/TP Monitors, Library Management, Report Generator
Specific Application: Communications from Micros to Prime and Micro to Micro
System Requirements: CP/M, MS/D
Memory Required: 32.0K bytes
Source Code Available: No
Purchase Terms: Purchase (license) - $3,500
Date First Installed: 1981
(See Vendor Profile Page V-15)

INFOSOFT SYSTEMS, INC.
INFOSOFT NETWORK SYSTEM - MULTI/NET
Additional Product Classification: Communications/TP Monitors, Networking
Specific Application: Networking
Memory Required: 32.0K bytes
Source Language: 8080 Assembler, InfosoR C
Purchase Terms: Purchase (license)
Date First Installed: September 1982
(See Vendor Profile Page V-15)

INFOSOFT SYSTEMS, INC.
INTELLIGENT TERMINAL (COMMUNICATION SYSTEM)
Additional Product Classification: Communications/TP Monitors
Specific Application: Communications
Memory Required: 3.2M bytes
Source Language: 8080 Assembler
Purchase Terms: Purchase (license)
Date First Installed: August 1976

INNOVATEK MICROSYSTEMS, INC.
COMMUNICATION LINK
Additional Product Classification: Communications/TP Monitors
Specific Application: High-Speed Communications to Remote Systems
System Requirements: DEC PDP-11; RT-11; DEC LSI-11; RT-11
Memory Required: 12.0K bytes
Source Language: Macro
Purchase Terms: Purchase (license) - $775
Date First Installed: 1978
(See Vendor Profile Page V-16)

INTEGRATED DESIGN ENGINEERING, INC.
NCR COMM
Additional Product Classification: Communications/TP Monitors
Specific Application: Data Communications
System Requirements: NCR Decision Mate V; CP/M, MS-DOS
Memory Required: 64.0K bytes
Source Language: Assembly
Source Code Available: No
Purchase Terms: Purchase (license) - $400
Date First Installed: August 1983
(See Vendor Profile Page V-16)

INTELLIGENT TECHNOLOGIES INTERNATIONAL CORP.
CLUSTER MET 3276
Additional Product Classification: Communications/TP Monitors
Specific Application: Multiple 3276 Cluster Emulation - PC to PC
System Requirements: IBM PC, MS-DOS
Memory Required: 256.0K bytes
Source Language: Compiled Basic, C, Assembler
Purchase Terms: Purchase (license) - $8,303
(See Vendor Profile Page V-16)

INTELLIGENT TECHNOLOGIES INTERNATIONAL CORP.
PC EXPRESS 1
Additional Product Classification: Communications/TP Monitors
Specific Application: Electronic Mail, PC to PC Link, DEC VT100/VT52 Emulator
System Requirements: IBM PC, MS-DOS
Memory Required: 256.0K bytes
Source Language: Compiled Basic, C, Assembler
Source Code Available: No
Purchase Terms: Purchase (license) - $695
Date First Installed: March 1983

INTELLIGENT TECHNOLOGIES INTERNATIONAL CORP.
PC EXPRESS 2
Additional Product Classification: Communications/TP Monitors
Specific Application: Electronic Mail, PC to PC Link, DEC VT100/VT52 Emulator
System Requirements: IBM PC, MS-DOS
Memory Required: 256.0K bytes
Source Language: Compiled Basic, C, Assembler
Source Code Available: No
Purchase Terms: Purchase (license) - $1,295
Date First Installed: March 1983

INTERCOM RESEARCH CORP.
INTERCOM 100A
Additional Product Classification: Communications/TP Monitors
Specific Application: Communications Software for Front End Processing
System Requirements: DEC VAX: VMS; DEC PDP-11: CP/M, Unix
Memory Required: 16.0K bytes
Source Language: Assembly
Source Code Available: No
Purchase Terms: Purchase (license); Lease - $1,250 to $4,900
Date First Installed: January 1983
(See Vendor Profile Page V-16)

INTERNETICS
TALK
Additional Product Classification: Communications/TP Monitors
Specific Application: Communications Link Between Minis and Mainframes
System Requirements: Intel
Source Language: C
Purchase Terms: Purchase (license) - $500
(See Vendor Profile Page V-16)

INTERNATIONAL DIGITAL ELECTRONICS ASSOCIATES
COMMUNICATION
Additional Product Classification: Communications/TP Monitors
Specific Application: Telex, TWX, Special Protocols
Specific Industry: Communications
System Requirements: Intel: BTX; Sirplus
Source Language: Assembler
Purchase Terms: Purchase (license) - $1,500
Number Installed to Date: 100
Date First Installed: 1982
(See Vendor Profile Page V-17)

KEYBROOK BUSINESS SYSTEMS, INC.
KEYBROOK FILESERVER
Additional Product Classification: Communications/TP Monitors
Specific Application: Networking System for CP/M Micro Computers
System Requirements: Xerox 820; Sanyo: CP/M, Altos
Source Language: Z-80 Assembly
Purchase Terms: Purchase (license) - $2,700
Number Installed to Date: 50
Date First Installed: 1982
(See Vendor Profile Page V-17)

KEYSTONE DATA CONSULTANTS, INC.
FILE TRANSMISSION PACKAGE
Additional Product Classification: Communications/TP Monitors
Specific Application: Transmits Information from One Machine to Another
System Requirements: DEC PDP-11: RSX
Memory Required: 128.0K bytes
Source Language: Macro II
Purchase Terms: Purchase (license) - $1,200
Number Installed to Date: 8
Date First Installed: 1982

LEARNED-MANN
ASTALK
Additional Product Classification: Data/File Management, Communications/TP Monitors
Specific Application: Communications and File Building
System Requirements: IBM PC, GE Time-sharing System
Memory Required: 64.0K bytes
Source Language: Basic
Purchase Terms: Purchase (license) - $295
Number Installed to Date: 100
Date First Installed: August 1982
(See Vendor Profile Page V-17)

LEGENT AUTOMATION, INC.
UT 900
Additional Product Classification: Communications/TP Monitors
Specific Application: Terminal Emulator
System Requirements: Four Phase 4/ MFE
Source Language: Cobol
Source Code Available: No
Purchase Terms: Purchase (license) - $10,000
Number Installed to Date: 3
Date First Installed: 1982
(See Vendor Profile Page V-18)

LIEBERMAN SYSTEMS
OMSTERM
Additional Product Classification: Communications/TP Monitors
Specific Application: Smart Terminal Software With File Transfer
System Requirements: TRS-80 Models I, II, III, 12
Source Code Available: Yes
Purchase Terms: Purchase (license) - $95 to $175
Number Installed to Date: 1,000
Date First Installed: January 1980
(See Vendor Profile Page V-18)

LINK SYSTEMS
DATALINK
Additional Product Classification: Communications/TP Monitors
Specific Application: Communicates to Other Data Bases
System Requirements: Apple II, IIE, III: UCSD-P System; IBM PC-XT, UCSD-P System
Memory Required: 64.0K bytes
Source Language: Pascal
Source Code Available: No
Purchase Terms: Purchase (license)
Date First Installed: August 1983
(See Vendor Profile Page V-18)

LOGICA, INC.
FASTRAN
Additional Product Classification: Communications/TP Monitors
Specific Application: Bank Cable Room and Funds Transfer Automation Software
Specific Industry: Banking/Financial, International
System Requirements: DEC PDP-11: RSX, Tandem
Memory Required: 1.0M bytes
Source Language: Macro, C
Purchase Terms: Purchase (license); Rental; Lease - $100,000
Number Installed to Date: 20
Date First Installed: 1976
(See Vendor Profile Page V-18)

Software

LOGICA, INC.
FASTRX
Additional Product Classification: Communications/TP Monitors
Specific Application: Transaction Processing and Message Switching Applications
Specific Industry: Banking/Financial, International
System Requirements: DEC PDP-11: RSX; Tandem
Memory Required: 1.0M bytes
Source Language: Macro, C
Purchase Terms: Purchase (license); Rental; Lease - $75,000
Number Installed to Date: 25
Date First Installed: 1979

LOGICA, INC.
FASTWIRE
Additional Product Classification: Communications/TP Monitors
Specific Application: Bank Cable Room and Funds Transfer Automation Software
Specific Industry: Banking/Financial, International
System Requirements: DEC PDP-11: RSX
Memory Required: 1.0M bytes
Source Language: Macro, C
Purchase Terms: Purchase (license); Rental; Lease - $100,000
Number Installed to Date: 3
Date First Installed: 1982

MACKINNEY SYSTEMS
CICS/SPOOLER
Additional Product Classification: Communications/TP Monitors
Specific Application: Print Spooler System
System Requirements: IBM 370, 4300, 30XX
Memory Required: 32.0K bytes
Source Language: Cobol, Assembler
Purchase Terms: Purchase (license); Lease - $995
Date First Installed: October 1983
(See Vendor Profile Page V-18)

MAGNUM COMMUNICATIONS, LTD.
CREDICHECK
Additional Product Classification: Communications/TP Monitors
Specific Application: System to System Credit Bureau Access System
Specific Industry: Retail, Banking/Financial
System Requirements: IBM Mainframe: CICS
Memory Required: 30.0K bytes
Source Language: Cobol, Assembler, EDL
Purchase Terms: Purchase (license) - $8,500 to $35,500
Number Installed to Date: 7
Date First Installed: 1977
(See Vendor Profile Page V-18)

MATHEMATICA PRODUCTS GROUP
ATLAS
Additional Product Classification: Communications/TP Monitors
Specific Application: Data Communications Monitor
System Requirements: IBM: DOS/VSE
Source Language: Assembler
Source Code Available: No
Purchase Terms: Purchase (license); Rental; Lease - $26,000
Number Installed to Date: 40
Date First Installed: 1982
(See Vendor Profile Page V-18)

MOORMACK & DODGE CORP.
PC/M
Additional Product Classification: Communications/TP Monitors
Specific Application: Personal Computer Link from Micro to Mainframe
System Requirements: IBM: OS, DOS
Memory Required: 100.0K bytes
Source Language: Cobol
Purchase Terms: Purchase (license) - $10,000
Date First Installed: 1983
(See Vendor Profile Page V-18)

MCDONNELL DOUGLAS AUTOMATION CO.
MCAUTO SYSTEM 1
Additional Product Classification: Communications/TP Monitors
Specific Application: Manage A Distributed Environment Between A Local Minicomputer Dedicated to An Engineering Project and A Backup Mainframe
Specific Industry: Manufacturing, Engineering, Construction, Government, Transportation
System Requirements: DEC: VMS
Memory Required: 1.0K bytes
Source Code Available: No
Purchase Terms: Purchase (license); Lease
Date First Installed: February 1983
(See Vendor Profile Page V-18)

MCSE ENTERPRISES
PROCALL
Additional Product Classification: Communications/TP Monitors
Specific Application: Communicates With Bulletin Boards Large Computers Between Cromemco Systems Multi- and Single-User Environments, Christensen Protocol Or Program Transfers
System Requirements: Cromemco C10: C-DOS; Cromemco S100: Cromix
Memory Required: 64.0K bytes
Source Language: Assembler
Source Code Available: No
Purchase Terms: Purchase (license) - $350
Number Installed to Date: 150
Date First Installed: December 1982
(See Vendor Profile Page V-18)

MEGAWEST SYSTEMS, INC.
MEGA NET
Additional Product Classification: Communications/TP Monitors
Specific Application: Communications Package
System Requirements: IBM PC; Mentor: Pick; Micro Data
Memory Required: 64.0K bytes
Source Language: Data Basic
Purchase Terms: Purchase (license) - $2,000
Number Installed to Date: 46
Date First Installed: 1980
(See Vendor Profile Page V-19)

MERIDIAN TECHNICAL ASSOCIATES, INC.
INTELLIGENT MODEM PROGRAM IMP
Additional Product Classification: Communications/TP Monitors
Specific Application: Terminal Emulation
System Requirements: Zenith/Heath H8: H-DOS; Zenith/Heath H/Z89: CP/M; Zenith/Heath H/Z90: CP/M-86, Zenith/Heath H/Z100: Z-DOS
Memory Required: 32.0K bytes
Source Language: Assembler
Source Code Available: No
Purchase Terms: Purchase (license) - $30
Number Installed to Date: 12
Date First Installed: November 1983
(See Vendor Profile Page V-19)

MICRO-INTEGRATION, INC.
BS 3270 VERSION 4.0
Additional Product Classification: Communications/TP Monitors
Specific Application: IBM 3270 Terminal Emulator
System Requirements: CP/M, CP/M 86, MS-DOS, PC-DOS
Memory Required: 64.0K bytes
Source Language: Assembler
Source Code Available: No
Purchase Terms: Purchase (license) - $995
Number Installed to Date: 2,000
Date First Installed: November 1980
(See Vendor Profile Page V-19)

MICRO-INTEGRATION, INC.
BS 3780 VERSION 5.0
Additional Product Classification: Communications/TP Monitors
Specific Application: IBM 2780, 3780 Emulator Communications Remote Job Entry
System Requirements: CP/M, CP/M 86, MS-DOS, PC-DOS
Memory Required: 64.0K bytes
Source Language: Assembler
Source Code Available: No
Purchase Terms: Purchase (license) - $995
Number Installed to Date: 2,000
Date First Installed: September 1979

MICRO-INTEGRATION, INC.
BS HASP VERSION 1.1
Additional Product Classification: Communications/TP Monitors
Specific Application: Hasp Multi-Leaving Workstation Communications, Remote Job Entry
System Requirements: CP/M, CP/M 86, MS-DOS, PC-DOS
Memory Required: 64.0K bytes
Source Language: Assembler
Purchase Terms: Purchase (license) - $995
Number Installed to Date: 50
Date First Installed: September 1981

MICRO-INTEGRATION, INC.
COAXSYS TM
Additional Product Classification: Communications/TP Monitors
Specific Application: IBM 3270 Coaxial Interface Hardware and Software
System Requirements: CP/M, CP/M 86, MS-DOS, PC-DOS
Memory Required: 64.0K bytes
Source Language: Pascal, Assembler
Source Code Available: No
Purchase Terms: Purchase (license) - $1,195

MICRO-INTEGRATION, INC.
MICRO-SNA/3270 VERSION 1.0
Additional Product Classification: Communications/TP Monitors
Specific Application: IBM 3270 Terminal Emulator, Communications
System Requirements: CP/M, CP/M 86, MS-DOS, PC-DOS
Memory Required: 64.0K bytes
Source Language: Assembler, Pascal
Source Code Available: No
Purchase Terms: Purchase (license) - $995

MICRO-INTEGRATION, INC.
MICRO-SNA3770
Additional Product Classification: Communications/TP Monitors
Specific Application: IBM 3770 Terminal Emulator, Communications, Remote Job Entry
System Requirements: CP/M, CP/M 86, MS-DOS, PC-DOS
Memory Required: 64.0K bytes
Source Language: Assembler, Pascal
Source Code Available: No
Purchase Terms: Purchase (license) - $995

MICRO/MACRO SYSTEMS, INC.
BI-SYNC
Additional Product Classification: Communications/TP Monitors
Specific Application: Remote Job Entry
System Requirements: Victor 9000
Memory Required: 128.0K bytes
Source Code Available: No
Purchase Terms: Purchase (license) - $495
Date First Installed: September 1983
(See Vendor Profile Page V-19)

MICRON, INC.
COMM LINE
Additional Product Classification: Communications/TP Monitors
Specific Application: Monitors Communication Between Computers
System Requirements: TRS-80, TRS-DOS
Memory Required: 64.0K bytes
Source Language: Assembly
Purchase Terms: Purchase (license) - $300

Date First Installed: 1983
(See Vendor Profile Page V-19)

MICRON, INC.
SMART TERM I
Additional Product Classification: Communications/TP Monitors
Specific Application: Makes Mini Look Like Intelligent Terminal
System Requirements: TRS-80, TRS-DOS
Memory Required: 32.0K bytes
Source Language: Assembly
Purchase Terms: Purchase (license)
Number Installed to Date: 200
Date First Installed: 1978

THE MICROPERIPHERAL CORP.
TSMART
Additional Product Classification: Communications/TP Monitors
Specific Application: Allows Up/Down Loading, Allows Transferable On/Off Selectable Communications Parameters
System Requirements: Atari
Memory Required: 32.0K bytes
Source Language: Basic, Assembly
Purchase Terms: Purchase (license) - $50
Date First Installed: January 1981
(See Vendor Profile Page V-19)

MICROSPARC, INC.
TELETEXT
Additional Product Classification: Communications/TP Monitors
Specific Application: A General Purpose Data Communications Package
System Requirements: Apple II+, IIE, DOS
Memory Required: 48.0K bytes
Source Language: Applesoft, 6502 Machine Language
Purchase Terms: Purchase (license) - $80
Number Installed to Date: 100
Date First Installed: June 1982
(See Vendor Profile Page V-19)

MICROSTUF, INC.
CROSSTALK XVI
Additional Product Classification: Communications/TP Monitors
Specific Application: Integrated Help System Emulates Several Terminals, Supports Most Autodial Modems Capable Of Totally Automated File Transmission
System Requirements: IBM PC; MS-DOS, Victor 9000; Eagle 1600; Corona
Memory Required: 96.0K bytes
Source Language: Assembly
Purchase Terms: Purchase (license) - $195
(See Vendor Profile Page V-19)

MICROSTUF, INC.
REMOTE
Additional Product Classification: Communications/TP Monitors
Specific Application: Remote Console Program Allows You to Call Into Your Microcomputer
System Requirements: IBM PC; MS-DOS; Televideo: CP/M; Eagle; North Star
Source Language: Assembly

MICROSTUF, INC.
TRANSPORTER
Additional Product Classification: Communications/TP Monitors
Specific Application: Automated Data Communications Program Designed for Unattended Information Exchange
System Requirements: IBM PC; MS-DOS
Memory Required: 96.0K bytes
Source Language: Assembly
Source Code Available: No
Purchase Terms: Purchase (license) - $295

MICRO-SYSTEMS SOFTWARE, INC.
BBS-80
Additional Product Classification: Communications/TP Monitors
Specific Application: Bulletin Board System That Hooks Into Microcomputers via Telephone
System Requirements: TRS-80/I; TRS-80/III
Source Language: Basic
Source Code Available: No
Purchase Terms: Purchase (licenda) - $80
Date First Installed: 1981
(See Vendor Profile Page V-19)

MICRO-SYSTEMS SOFTWARE, INC.
MICROTERM
Additional Product Classification: Communications/TP Monitors
Specific Application: Turns Microcomputer Into A Terminal to Hook Up Into Mainframes
System Requirements: TRS-80; IBM PC; Apple II, IIE
Source Language: Basic
Source Code Available: No
Purchase Terms: Purchase (license) - $80
Date First Installed: 1982

MICRO-SYSTEMS SOFTWARE, INC.
QUADROMACK
Additional Product Classification: Communications/TP Monitors
Specific Application: Communication System That Ties 4 TRS-80 Model I, III, IV to 1 Hard Disk
System Requirements: TRS-80/I; TRS-80/III; TRS-80/IV
Source Language: Basic
Source Code Available: No
Purchase Terms: Purchase (license) - $600 to $1,000
Date First Installed: August 1983

MODULAR INTEGRATION, INC.
COMPAK
Additional Product Classification: Communications/TP Monitors
Specific Application: Protocol Converter Package, Synchronous to Asynchronous Converter
Specific Industry: Weather Power
System Requirements: IBM PC; CP/M 86, MS-DOS
Memory Required: 256.0K bytes
Purchase Terms: Purchase (license); Lease - $500
Number Installed to Date: 600
Date First Installed: 1978
(See Vendor Profile Page V-20)

MODULAR INTEGRATION, INC.
SDLC/HDLC
Additional Product Classification: Communications/TP Monitors
Specific Application: SDLC/HDLC Communications Package
Specific Industry: Weather Power
System Requirements: CP/M 86, MS-DOS
Memory Required: 256.0K bytes
Purchase Terms: Purchase (license); Lease - $1,000
Number Installed to Date: 600
Date First Installed: 1978

MOHAWK DATA SCIENCES CORP.
BSC 3741
Additional Product Classification: Communications/TP Monitors
Specific Application: Communications
System Requirements: MDS Series 21; OS/2
Source Language: Mobol/Z80
Source Code Available: No.
(See Vendor Profile Page V-20)

MOHAWK DATA SCIENCES CORP.
BSI 3270
Additional Product Classification: Communications/TP Monitors
Specific Application: Communications
System Requirements: MDS Series 21, SO/2
Source Language: Mobol/Z80
Source Code Available: No

MOHAWK DATA SCIENCES CORP.
HASP/WS
Additional Product Classification: Communications/TP Monitors
Specific Application: Communications
System Requirements: MDS Series 21, OS/2
Memory Required: 9.6M bytes
Source Language: Mobol/Z80
Source Code Available: No
Purchase Terms: Purchase (license)

MOHAWK DATA SCIENCES CORP.
REMOTE COPY
Additional Product Classification: Communications/TP Monitors
Specific Application: Communications
System Requirements: MSD Series 21, OS/2
Source Language: Mobol/Z80
Source Code Available: No

MONROE SYSTEMS FOR BUSINESS
ASCOM +
Additional Product Classification: Communications/TP Monitors
Specific Application: Asynchronous Communications Utility
System Requirements: Monroe OC 8800: CP/M-80
Memory Required: 128.0K bytes
Source Language: Assembler
Source Code Available: No
Purchase Terms: Purchase (license); Lease - $175
Date First Installed: 1981
(See Vendor Profile Page V-20)

MONROE SYSTEMS FOR BUSINESS
MONROE BIS - 3780
Additional Product Classification: Communications/TP Monitors
Specific Application: Synchronous 2780/3780 Emulation
System Requirements: Monroe OC 8800: CP/M 80
Memory Required: 128.0K bytes
Source Language: Assembler
Source Code Available: No
Purchase Terms: Purchase (license); Lease - $750
Date First Installed: 1981

MONROE SYSTEMS FOR BUSINESS
MONROE BIS- 3270
Additional Product Classification: Communications/TP Monitors
Specific Application: Synchronous Communications
System Requirements: Monroe OC 8800: CP/M 80
Memory Required: 128.0K bytes
Source Language: Assembler
Source Code Available: No
Purchase Terms: Purchase (license); Lease - $750
Date First Installed: 1981

MONROE SYSTEMS FOR BUSINESS
MONROE TTY EMULATOR
Additional Product Classification: Communications/TP Monitors
Specific Application: Asynchronous Communications Utility
System Requirements: Monroe OC 8800: MS-10; Monore EC 8800: MS-10
Memory Required: 128.0K bytes
Source Language: Assembler
Source Code Available: No
Purchase Terms: Purchase (license); Lease - $95
Date First Installed: 1981

MONROE SYSTEMS FOR BUSINESS
MONROE BIS -HASP
Additional Product Classification: Communications/TP Monitors
Specific Application: Multileaving Workstation Emulation
System Requirements: Monroe OC 8800: CP/M 80
Memory Required: 128.0K bytes
Source Language: Assembler
Purchase Terms: Purchase (license); Lease - $795
Date First Installed: 1981

MONROE SYSTEMS FOR BUSINESS
MONROE 3270 SNA/SDLC
Additional Product Classification: Communications/TP Monitors

Specific Application: SNA 3270 Display Emulation
System Requirements: Monroe OC 8500: MS-10
Memory Required: 128.0K bytes
Source Language: Assembler
Source Code Available: No
Purchase Terms: Purchase (license); Lease - $995
Date First Installed: 1981

MOUNTAIN COMPUTER, INC.
SUPER TALKER
Additional Product Classification: Communications/TP Monitors
Specific Application: Speech Digitizer
System Requirements: Apple; IBM
Purchase Terms: Purchase (license)
(See Vendor Profile Page V-20)

MUNFORD MICRO SYSTEMS
DEMON
Additional Product Classification: Communications/TP Monitors
Specific Application: Monitor and Debugger
System Requirements: TRS-80: DOS
Memory Required: 32.0K bytes
Source Language: Assembler
Source Code Available: No
Purchase Terms: Purchase (license) - $29
Date First Installed: 1983
(See Vendor Profile Page V-21)

MUNFORD MICRO SYSTEMS
TELCOM II
Additional Product Classification: Communications/TP Monitors
Specific Application: Advanced Telecommunications
System Requirements: TRS-80: DOS
Memory Required: 32.0K bytes
Source Language: Assembler
Source Code Available: No
Purchase Terms: Purchase (license) - $99
Date First Installed: 1982

MUNFORD MICRO SYSTEMS
TELECOM I
Additional Product Classification: Communications/TP Monitors
Specific Application: Telecommunications
System Requirements: TRS-80: DOS
Memory Required: 32.0K bytes
Source Language: Assembler
Source Code Available: No
Purchase Terms: Purchase (license) - $39
Date First Installed: 1980

NATIONAL E-F-T, INC.
LINK/1
Additional Product Classification: Communications/TP Monitors
Specific Application: Communications Support Package
Specific Industry: Manufacturing, Banking/Financial
System Requirements: IBM Series/1
Memory Required: 64.0K bytes
Source Language: Cobol
Purchase Terms: Purchase (license) - $20,000
Number Installed to Date: 2
Date First Installed: 1982
(See Vendor Profile Page V-21)

NATIONAL MICRO PRODUCTS, INC.
MODEM
Additional Product Classification: Communications/TP Monitors
Specific Application: Order Entry
System Requirements: Intertec Computer: CP/M
Memory Required: 64.0K bytes
Source Language: Basic, Pascal, Assembler
Purchase Terms: Purchase (license) - $40,000
Date First Installed: December 1983
(See Vendor Profile Page V-21)

NATIONAL MICRO PRODUCTS, INC.
SMODEM
Additional Product Classification: Communications/TP Monitors
Specific Application: Order Entry
System Requirements: Intertec Computer, CP/M
Memory Required: 64.0K bytes
Source Language: Basic, Pascal, Assembler
Purchase Terms: Purchase (license) - $40,000
Date First Installed: December 1983

NATIONAL MICRO PRODUCTS, INC.
XMODEM
Additional Product Classification: Communications/TP Monitors
Specific Application: Order Entry
System Requirements: Intertec Computer, CP/M
Memory Required: 64.0K bytes
Source Language: Basic, Pascal, Assembler
Purchase Terms: Purchase (license) - $40,000
Date First Installed: December 1983

NATIONAL SEMICONDUCTOR CORP.
ANS-TRAN
Additional Product Classification: Communications/TP Monitors
Specific Application: Enables POS Systems to Communicate With Host Computers
Specific Industry: Food
System Requirements: DEC PDP-11
Memory Required: 256.0K bytes
Source Language: IMP, Macro-11
(See Vendor Profile Page V-21)

NATIONAL SEMICONDUCTOR CORP.
SNCS
Additional Product Classification: Communications/TP Monitors
Specific Application: Enables POS Systems to Communicate With Host Computers
Specific Industry: Food
System Requirements: DEC PDP-11: RSX-11
Memory Required: 256.0K bytes
Source Language: IMP, Macro-11
Source Code Available: No

NCR COMTEN, INC.
ACF/NCP 3
Additional Product Classification: Communications/TP Monitors
Specific Application: Compatible With IBM ACF/NCR. Enables Increase of Data Access Within The Network By Supporting Various Systems
System Requirements: NCR: SCS 63/Cross 2
Source Language: Codel
Purchase Terms: Purchase (license)
Date First Installed: 1982
(See Vendor Profile Page V-21)

NCR COMTEN, INC.
CNS 2-COMMUNICATIONS NETWORKING SYSTEM
Additional Product Classification: Communications/TP Monitors
Specific Application: Network Trunking Facility to Interconnect NCR Comten 3600 Systems
System Requirements: NCR
Source Language: Codel
Purchase Terms: Purchase (license)
Date First Installed: 1981

NCR COMTEN, INC.
EP 4-EMULATION PROCESSING
Additional Product Classification: Communications/TP Monitors
Specific Application: Permits Compatible Comten 3600 Communication Processors to Function As Or Emulate IBM 270X/IBM 370X Program Controllers
System Requirements: NCR Comten 3600: SCS 63/Cross 2
Source Language: Codel
Purchase Terms: Purchase (license)
Date First Installed: 1981

NCR COMTEN, INC.
MAF 3-3270 MULTIPLE ACCESS FACILITY
Additional Product Classification: Communications/TP Monitors
Specific Application: Allows 3270 Devices to Select Any Emulation Host Application Defined In The Network
System Requirements: NCR
Source Language: Codel
Purchase Terms: Purchase (license)
Date First Installed: 1981

NCR COMTEN, INC.
NTO-NETWORK TERMINAL OPTION
Additional Product Classification: Communications/TP Monitors
Specific Application: Allows ACF/NCP 3 Product to Select SNA Start/Stop Devices Which Communicate
System Requirements: NCR
Source Language: Codel
Purchase Terms: Purchase (license)
Date First Installed: 1981

NCR COMTEN, INC.
SRM 1-SUB AREA ROUTING MANAGER
Additional Product Classification: Communications/TP Monitors
Specific Application: Allows Bysynchronous and SNA 3270 Devices to be Dynamically Routed to Emulator or SNA Host Access Methods
System Requirements: NCR
Source Language: Codel
Purchase Terms: Purchase (license)
Date First Installed: 1981

NCR COMTEN, INC.
X.25 PUBLIC DATA NETWORK
Additional Product Classification: Communications/TP Monitors
Specific Application: Supports The Public Data Network
System Requirements: NCR
Source Language: Codel
Purchase Terms: Purchase (license)
Date First Installed: 1980

NCR CORP.
NCR-DMS/TRAN-PRO EL
Additional Product Classification: Communications/TP Monitors
Specific Application: Entry Level Transaction Processing Monitor
Specific Industry: Manufacturing, Engineering, Wholesale/Distribution, Retail, Banking/Financial, Medical, Legal, Insurance, Real Estate, Education, Construction, Government, Transportation, Non-Profit Organizations, Scientific
System Requirements: NCR V-8500, VRX; NCR V-8000 Series, VRX
Memory Required: 1.0K bytes
Source Language: Cobol, NEAT/VS
Source Code Available: No
Purchase Terms: Purchase (license); Rental
Number Installed to Date: 6
Date First Installed: October 1982
(See Vendor Profile Page V-21)

NESTAR SYSTEMS, INC.
"MESSENGER" ELECTRONIC MAIL
Additional Product Classification: Communications/TP Monitors, Insurance, Mail System
Specific Application: Memos/Letters Sent Between Users Connected by Same Local Network
System Requirements: Apple II: Pascal; Apple III: SOS; IBM PC: DOS, CP/M
Memory Required: 64.0K bytes
Source Language: Pascal
Purchase Terms: Purchase (license)
Number Installed to Date: 500
Date First Installed: 1981
(See Vendor Profile Page V-21)

NESTAR SYSTEMS, INC.
3270 CLUSTER EMULATOR SERVER
Additional Product Classification: Communications/TP Monitors
Specific Application: 3270 Emulation
System Requirements: Apple II: Pascal; IBM PC: PC-DOS
Memory Required: 64.0K bytes
Source Language: Pascal
Source Code Available: No
Purchase Terms: Purchase (license) - $2,000

Purchase Terms: Purchase (license) - $2,000
Number Installed to Date: 1,000
Date First Installed: 1982

NESTAR SYSTEMS, INC.
3278 EMULATOR
Additional Product Classification: Communications/TP Monitors
Specific Application: Emulates IBM 3278 Model II for PC On the Same Local Network As IBM 3274 Emulator
System Requirements: Apple II: Pascal; Apple III: SOS; IBM PC: DOS, CP/M
Memory Required: 64.0K bytes
Source Language: Pascal
Source Code Available: No
Purchase Terms: Purchase (license) - $200
Date First Installed: July 1983

NESTAR SYSTEMS, INC.
3770 EMULATOR SERVER
Additional Product Classification: Communications/TP Monitors
Specific Application: 3770 Emulation
System Requirements: IBM PC: PC-DOS; Apple II: Pascal; Apple III: SOS
Memory Required: 64.0K bytes
Source Language: Pascal
Source Code Available: No
Purchase Terms: Purchase (license) - $1,000
Number Installed to Date: 1,000
Date First Installed: 1982

NESTAR SYSTEMS, INC.
FILE TRANSFER SERVER
Additional Product Classification: Communications/TP Monitors
Specific Application: Provides Batch Transfer of Files
System Requirements: Apple II, Pascal; Apple III, SOS; IBM PC, PC-DOS, CP/M
Memory Required: 64.0K bytes
Source Language: Pascal
Source Code Available: No
Purchase Terms: Purchase (license) - $2,000
Number Installed to Date: 1,000
Date First Installed: 1981

NEW GENERATION SYSTEMS, INC.
AMCALL
Additional Product Classification: Communications/TP Monitors
Specific Application: Communications Package
System Requirements: Compupro, CP/M
Memory Required: 64.0K bytes
Source Language: C, Assembly
Source Code Available: No
Purchase Terms: Purchase (license), - $150
Date First Installed: January 1982
(See Vendor Profile Page V-22)

N. F. SYSTEMS, LTD.
HOST COMM
Additional Product Classification: Communications/TP Monitors
Specific Application: Host Communications Package
System Requirements: IBM PC: MS-DOS; Compaq
Memory Required: 128.0K bytes
Source Language: Basic
Source Code Available: No
Purchase Terms: Purchase (license) - $120
Number Installed to Date: 200
Date First Installed: September 1982
(See Vendor Profile Page V-21)

NIXDORF COMPUTER CORP.
3270 BISYNC EMULATOR
Additional Product Classification: Communications/TP Monitors
Specific Application: Interactive Communication Between 8860 and Host
System Requirements: Nixdorf 8860: Dipos
Memory Required: 512.0K bytes
Source Language: Assembler
Purchase Terms: Rental
Number Installed to Date: 5,000
(See Vendor Profile Page V-22)

NIXDORF COMPUTER CORP.
3270 SNA EMULATOR
Additional Product Classification: Communications/TP Monitors
Specific Application: Interactive Communication Between 8860 and Host
System Requirements: Nixdorf 8860: Dipos
Memory Required: 512.0K bytes
Source Language: Assembler
Purchase Terms: Rental
Number Installed to Date: 5,000

NIXDORF COMPUTER CORP.
3770 SNA EMULATOR
Additional Product Classification: Communications/TP Monitors
Specific Application: Batch Communications Between 8860 and Host
System Requirements: Nixdorf 8860: Dipos
Memory Required: 512.0K bytes
Source Language: Assembler
Purchase Terms: Rental
Number Installed to Date: 2,000

NORTHEAST DATACOM, INC.
TELECOMMUNICATIONS
Additional Product Classification: Communications/TP Monitors
Specific Application: Telecommunications
System Requirements: Wang 2200 MVP: Speed
Memory Required: 28.0K bytes
Source Language: Basic II
Purchase Terms: Purchase (license)
(See Vendor Profile Page V-22)

OFFICE EXPRESS, INC.
INTF 3270
Additional Product Classification: Communications/TP Monitors
Specific Application: Software Interface for Terminal Monitor to CICS Or Other Monitors
System Requirements: OS/VS1, DOS/VS
Source Language: Assembler
Source Code Available: No
Purchase Terms: Purchase (license); Rental
Number Installed to Date: 25
Date First Installed: 1982
(See Vendor Profile Page V-22)

ORION SOFTWARE, INC.
NETWORK ORION
Additional Product Classification: Communications/TP Monitors
Specific Application: Connects IBM System/34, 36, 38 With Telex
System Requirements: IBM System/34: SSP; IBM System/36: SPF; IBM System/38: CPF
Memory Required: 96.0K bytes
Source Language: RPG-II, Assembler
Source Code Available: No
Purchase Terms: Purchase (license); Rental; Lease - $3,200 to $10,000
Number Installed to Date: 120
Date First Installed: January 1982
(See Vendor Profile Page V-22)

PAGER SOFTWARE
GNET
Additional Product Classification: Communications/TP Monitors
Specific Application: Asynchronous (RS-232) Communications Between Local Prime Computer and Remote System
System Requirements: Prime: Primos
Memory Required: 128.0K bytes
Source Language: Fortran, PL/1
Source Code Available: Yes
Purchase Terms: Purchase (license) - $1,000
Date First Installed: September 1981
(See Vendor Profile Page V-22)

PACESETTER SYSTEMS, INC.
PACER/HP3-HOST PROCESSING SYSTEM
Additional Product Classification: Communications/TP Monitors
Specific Application: Allows Bank to Communicate With IBM 370
Specific Industry: Banking/Financial
System Requirements: IBM 370; IBM 4300: OS; IBM 3000: DOS; IBM 308X
Source Language: Cobol, Assembler
Purchase Terms: Purchase (license); Lease
Number Installed to Date: 1
Date First Installed: 1982
(See Vendor Profile Page V-23)

PACIFIC SOFTWARE MANUFACTURING CO.
X.DOT:PAD
Additional Product Classification: Communications/TP Monitors
Specific Application: Interface from Asynchronous Terminals to A Packet- Switching Network
System Requirements: DEC VAX; Motorola 68000; Zilog Z8000
Memory Required: 64.0K bytes
Source Language: C
Purchase Terms: Purchase (license) - $40,000
Date First Installed: 1983
(See Vendor Profile Page V-23)

PACIFIC SOFTWARE MANUFACTURING CO.
X.DOT:XL25
Additional Product Classification: Program Generators/Aids, Application Development Tools, Communications/TP Monitors
Specific Application: C Language Source Code Technology Transfer Product
System Requirements: DEC VAX, VMS, Motorola 68000; Zilog Z8000
Memory Required: 64.0K bytes
Source Language: C
Purchase Terms: Purchase (license) - $30,000
Number Installed to Date: 10
Date First Installed: 1981

PACIFIC SOFTWARE MANUFACTURING CO.
X.DOT FOR UNIX
Additional Product Classification: Program Generators/Aids, Application Development Tools, Communications/TP Monitors
Specific Application: Interface from Unix to Packet Switching, Supports Remote Log-In, Call Out, File Transfer, Mail
System Requirements: DEC VAX; Motorola 68000; Zilog Z8000
Memory Required: 64.0K bytes
Source Language: C
Purchase Terms: Purchase (license) - $40,000
Date First Installed: 1983

PARTICIPATION SYSTEMS, INC.
PARTICIPATE
Additional Product Classification: Communications/TP Monitors, DBMS
Specific Application: Computer Conferencing Package Including Electronic Mail and A Bulletin Board
System Requirements: DEC VAX: VMS; Prime Series 50: Primos; Honeywell DPS8: GCOS, IBM: VM/CMS, MVS/TSO
Memory Required: 160.0K bytes
Source Language: Pascal
Purchase Terms: Purchase (license); Time-sharing - $30,000 to $60,000
Number Installed to Date: 10
Date First Installed: May 1982
(See Vendor Profile Page V-23)

PATHWAY DESIGN, INC.
PATHWAY/SDC
Additional Product Classification: Communications/TP Monitors
Specific Application: Communication 3270/3770 Emulator
System Requirements: IBM PC, MS-DOS, PC-DOS
Memory Required: 128.0K bytes
Source Language: C
Purchase Terms: Purchase (license) - $595
Date First Installed: September 1983
(See Vendor Profile Page V-23)

PATHWAY DESIGN, INC.
PATHWAY/SNA
Additional Product Classification: Communications/TP Monitors

Specific Application: 3773/3270 Emulator
System Requirements: IBM PC, PC-DOS, MS-DOS
Memory Required: 128.0K bytes
Source Language: C
Source Code Available: No
Purchase Terms: Purchase (license) - $595
Date First Installed: September 1983

PEACHTREE SOFTWARE
TELECOMMUNICATIONS
Additional Product Classification: Communications/TP Monitors
Specific Application: Program (Data Communication)
Source Language: Assembler
Purchase Terms: Purchase (license) - $150
(See Vendor Profile Page V-23)

PENNGRAM SYSTEMS, INC.
PMS
Additional Product Classification: Communications/TP Monitors
Specific Application: Network Management
System Requirements: IBM PC; CPM; IBM 30XX: Unix, MS-DOS
Memory Required: 64.0K bytes
Source Language: C4, Unix, PL/1
Source Code Available:
Purchase Terms: Purchase (license); Rental; Lease - $250,000
Number Installed to Date: 2
Date First Installed: January 1980
(See Vendor Profile Page V-23)

PICKLES & TROUT
LYNC 3.0 COMMUNICATIONS SOFTWARE
Additional Product Classification: Communications/TP Monitors, System Resource Management
Specific Application: Communications Software
System Requirements: CP/M
Memory Required: 32.0K bytes
Source Language: Assembly
Source Code Available: No
Purchase Terms: Purchase (license) - $95
Date First Installed: January 1983
(See Vendor Profile Page V-24)

PLANNING DATA SYSTEMS
TERM
Additional Product Classification: Communications/TP Monitors
Specific Application: Communications Between Micros and Mainframes
System Requirements: Televideo: CP/M; Vector Graphics: CP/M
Memory Required: 48.0K bytes
Source Language: Fortran
Source Code Available: No
Purchase Terms: Purchase (license)
Date First Installed: 1982
(See Vendor Profile Page V-24)

POLYGON SOFTWARE CORP.
INTERCOMM
Additional Product Classification: Communications/TP Monitors
Specific Application: Communications
System Requirements: IBM 360/370: OS, VS, MVS
Source Language: Assembler
Purchase Terms: Purchase (license) - $75,000
Number Installed to Date: 500
Date First Installed: September 1980
(See Vendor Profile Page V-24)

PRIME COMPUTER, INC.
DPTX - INTERCONNECT FACILITY FOR IBM 3270
Additional Product Classification: Communications/TP Monitors
Specific Application: Communications Control and Facilitation
System Requirements: Prime, Primos
Source Code Available: No
Purchase Terms: Purchase (license); Monthly License - $7,500
Number Installed to Date: 1,000
Date First Installed: 1979
(See Vendor Profile Page V-24)

PRIME COMPUTER, INC.
EMI 200 UT-EMULATION FOR CONTROL DATA UT 200
Additional Product Classification: Communications/TP Monitors
Specific Application: Emulation - Communication
System Requirements: Prime: Primos
Source Code Available: No
Purchase Terms: Purchase (license); Monthly License - $3,750
Date First Installed: 1979

PRIME COMPUTER, INC.
EMI 1004 - EMULATION FOR UNIVAC 1004
Additional Product Classification: Communications/TP Monitors
Specific Application: Emulation - Communication
System Requirements: Prime: Primos
Source Code Available: No
Purchase Terms: Purchase (license); Monthly License - $3,750
Date First Installed: 1979

PRIME COMPUTER, INC.
EMI 7020 - EMULATION FOR ICL 7020
Additional Product Classification: Communications/TP Monitors
Specific Application: Emulation - Communication
System Requirements: Prime: Primos
Source Code Available: No
Purchase Terms: Purchase (license); Monthly License - $3,750
Date First Installed: 1980

PRIME COMPUTER, INC.
EMI GRTS - EMULATION FOR HONEYWELL GRTS
Additional Product Classification: Communications/TP Monitors
Specific Application: Emulation - Communication
System Requirements: Prime: Primos
Source Code Available: No
Purchase Terms: Purchase (license); Monthly License - $4,500
Date First Installed: 1979

PRIME COMPUTER, INC.
EMI XBM - EMULATION FOR ICL XBM
Additional Product Classification: Communications/TP Monitors
Specific Application: Emulation - Communication
System Requirements: Prime: Primos
Source Code Available: No
Purchase Terms: Purchase (license); Monthly License - $3,750
Date First Installed: 1982

PRIME COMPUTER, INC.
EMHASP - EMULATION FOR IBM HASP II
Additional Product Classification: Communications/TP Monitors
Specific Application: Emulation - Communication
System Requirements: Prime: Primos
Source Code Available: No
Purchase Terms: Purchase (license); Monthly License - $5,250
Date First Installed: 1979

PRIME COMPUTER, INC.
EMX80 - EMULATION FOR IBM 2780/3780
Additional Product Classification: Communications/TP Monitors
Specific Application: Communications - Emulation
System Requirements: Prime: Primos
Source Code Available: No
Purchase Terms: Purchase (license); Monthly License - $4,500
Date First Installed: 1979

PRIME COMPUTER, INC.
FILE TRANSFER SERVICE
Additional Product Classification: Communications/TP Monitors, System Resource Management
Specific Application: Network File Transfer Facility
System Requirements: Prime: Primos
Source Code Available: No
Purchase Terms: Purchase (license); Monthly License - $2,000
Date First Installed: 1982

PRIME COMPUTER, INC.
PACKET NETWORK INTERFACE
Additional Product Classification: Communications/TP Monitors
Specific Application: Communications Control and Facilitation
System Requirements: Prime: Primos
Source Code Available: No
Purchase Terms: Purchase (license); Monthly License - $2,500
Date First Installed: 1979

PRIME COMPUTER, INC.
PRIMENET - NETWORKING FACILITY
Additional Product Classification: Communications/TP Monitors
Specific Application: Communications Control and Facilitation - DDP Environment
System Requirements: Prime 50 Series: Primos
Source Code Available: No
Purchase Terms: Purchase (license); Monthly License - $7,500
Number Installed to Date: 1,000
Date First Installed: 1979

PROGRAM RESOURCES, INC.
WANG DEC LINK
Additional Product Classification: Communications/TP Monitors
Specific Application: VT100 Emulation Package
Source Language: Assembler
Source Code Available: No
Purchase Terms: Purchase (license) - $995
Number Installed to Date: 3
Date First Installed: 1983
(See Vendor Profile Page V-24)

PROTOCOL COMPUTER, INC.
PCITERM 51 (UPGRADED VERSION OF 5186 PLUS)
Additional Product Classification: Communications/TP Monitors
Specific Application: Terminal Emulation In Conjunction With Protocol Conversion
System Requirements: MS-DOS
Memory Required: 128.0K bytes
Source Language: Assembly
Source Code Available: No
Purchase Terms: Purchase (license) - $295
Number Installed to Date: 5,000
Date First Installed: January 1983
(See Vendor Profile Page V-24)

PROTOCOL COMPUTER, INC.
PCITERM 78 (UPGRADED VERSION OF 7887 PLUS)
Additional Product Classification: Communications/TP Monitors
Specific Application: Terminal Emulation In Conjunction With Protocol Conversion
System Requirements: MS-DOS
Memory Required: 128.0K bytes
Source Language: Assembly
Source Code Available: No
Purchase Terms: Purchase (license) - $295
Number Installed to Date: 5,000
Date First Installed: January 1983

QUADSTAR CORP.
AUDIO RESPONSE SYSTEM
Additional Product Classification: Communications/TP Monitors
Specific Application: Home Bill Payment, Teller Assist Functions Via Telephone
Specific Industry: Retail, Banking/Financial
System Requirements: IBM Series/1, EDX
Memory Required: 512.0K bytes
Source Language: Cobol
Source Code Available: No
Purchase Terms: Purchase (license) - $75,000
Number Installed to Date: 2
Date First Installed: 1981
(See Vendor Profile Page V-24)

QUADSTAR CORP.
AUTOMATED COLLECTION SYSTEM
Additional Product Classification: Communications/TP Monitors
Specific Application: Automated Credit Card System and Installment Loan Collection Activities
Specific Industry: Retail, Banking/Financial
System Requirements: IBM Series/1: EDX
Memory Required: 512.0K bytes
Source Language: Cobol
Purchase Terms: Purchase (license); Rental, Lease - $75,000
Number Installed to Date: 3
Date First Installed: 1981

QUADSTAR CORP.
HOME BANKING SYSTEM
Additional Product Classification: Communications/TP Monitors
Specific Application: Personal Home Banking
Specific Industry: Retail, Banking/Financial
System Requirements: IBM Series/1: EDX
Memory Required: 512.0K bytes
Source Language: Cobol
Purchase Terms: Purchase (license); Rental, Lease - $50,000
Number Installed to Date: 1
Date First Installed: 1983

QUADSTAR CORP.
MINIHOST
Additional Product Classification: Communications/TP Monitors
Specific Application: Terminal Network Management System
Specific Industry: Retail, Banking/Financial
System Requirements: IBM Series/1: EDX
Memory Required: 512.0K bytes
Source Language: Cobol
Purchase Terms: Purchase (license); Rental - $200,000
Number Installed to Date: 20
Date First Installed: 1979

QUALITY SOFTWARE, INC.
QS CALL
Additional Product Classification: Communications/TP Monitors
Specific Application: Data Transfer Via Telecommunications
System Requirements: IBM PC-XT: MS-DOS; Altos 8000-2: CP/M; IBM PC: MS-DOS 2.0
Memory Required: 64.0K bytes
Source Language: C
Source Code Available: No
Purchase Terms: Purchase (license) - $195
Date First Installed: January 1982
(See Vendor Profile Page V-24)

QUALITY SOFTWARE, INC.
QS SAM
Additional Product Classification: Communications/TP Monitors
Specific Application: Utility for Transfering Text from Microcomputers to AM Typesetter
System Requirements: IBM PC-XT: MS-DOS 2.0; Altos 8000: CP/M; IBM PC: MS-DOS 2.0
Memory Required: 48.0K bytes
Source Language: C
Source Code Available: No
Purchase Terms: Purchase (license) - $795
Date First Installed: January 1982

RACET COMPUTERS, LTD.
MAGIC MAIL
Additional Product Classification: Communications/TP Monitors
Specific Application: Electronic Mail
System Requirements: MEC PC-8001, 8801: Recet NEC-DOS
Memory Required: 32.0K bytes
Source Language: Assembly
Source Code Available: No
Purchase Terms: Purchase (license) - $150
Number Installed to Date: 25
Date First Installed: 1983
(See Vendor Profile Page V-25)

ROS (ROESA COMPUTER SYSTEMS), INC.
SUPER COM
Additional Product Classification: Communications/TP Monitors
Specific Application: Communications Package
System Requirements: IBM PC: CP/M
Memory Required: 48.0K bytes
Source Language: C
Source Code Available: No
Purchase Terms: Purchase (license) - $19,500
Number Installed to Date: 2
Date First Installed: 1982
(See Vendor Profile Page V-25)

REAL-TIME MANAGEMENT, INC.
REMOTE 990
Additional Product Classification: Communications/TP Monitors
Specific Application: Allows TI 990S and Business Systems to Participate in Burroughs Poll Network
System Requirements: TI 300; TI 990
Memory Required: 192.0K bytes
Source Language: TI Assembly, Cobol, Tform
Purchase Terms: Purchase (license) - $12,500
Date First Installed: 1978
(See Vendor Profile Page V-25)

REDDING GROUP, INC.
ALPACA PLUS
Additional Product Classification: Communications/TP Monitors
Specific Application: Micro to Micro Network Communications System
System Requirements: IBM PC: CP/M
Memory Required: 48.0K bytes
Source Language: Fortran
Purchase Terms: Purchase (license) - $500
(See Vendor Profile Page V-25)

REDDING GROUP, INC.
ALPACA-PLUS - VERSION 2.56
Additional Product Classification: Communications/TP Monitors
Specific Application: Micro-to-Micro Communications Link
System Requirements: CP/M 80
Memory Required: 48.0K bytes
Source Code Available: No
Purchase Terms: Purchase (license) - $600
Date First Installed: 1980

REDDING GROUP, INC.
ASYNCH
Additional Product Classification: Communications/TP Monitors
Specific Application: Asynchronous Communicator
System Requirements: IBM PC: CP/M
Memory Required: 48.0K bytes
Source Language: Fortran
Purchase Terms: Purchase (license) - $100

REDDING GROUP, INC.
ASYNC - VERSION 3.01
Additional Product Classification: Communications/TP Monitors
Specific Application: Asynchronous Communications
System Requirements: CP/M
Memory Required: 48.0K bytes
Purchase Terms: Purchase (license) - $100
Date First Installed: 1979

REDDING GROUP, INC.
LYNX
Additional Product Classification: Communications/TP Monitors
Specific Application: Overlay Linker
System Requirements: IBM PC: CP/M
Memory Required: 48.0K bytes
Source Language: Fortran
Purchase Terms: Purchase (license) - $250 to $180

REDDING GROUP, INC.
MICRO E COM
Additional Product Classification: Communications/TP Monitors
Specific Application: Asynchronous Electronic Mail
System Requirements: IBM PC: CP/M
Memory Required: 48.0K bytes
Source Language: Fortran
Purchase Terms: Purchase (license)

REDDING GROUP, INC.
MICRO X.25
Additional Product Classification: Communications/TP Monitors
Specific Application: Protocol for Communication

System Requirements: IBM PC: CP/M
Memory Required: 48.0K bytes
Source Language: Fortran
Purchase Terms: Purchase (license)

REDDING GROUP, INC.
SYNCH 3780/3780
Additional Product Classification: Communications/TP Monitors
Specific Application: Emulates Protocol for IBM Bisynchronous Micro to Mainframe
System Requirements: IBM PC: CP/M
Memory Required: 48.0K bytes
Source Language: Fortran
Purchase Terms: Purchase (license) - $500

REDDING GROUP, INC.
SYNCH 2780/3780 - VERSION 2.52
Additional Product Classification: Communications/TP Monitors
Specific Application: Bisynchronous Communications Package
System Requirements: CP/M
Memory Required: 48.0K bytes
Source Code Available: No
Purchase Terms: Purchase (license) - $500
Date First Installed: April 1979

REDDING GROUP, INC.
SYNCH 3270
Additional Product Classification: Communications/TP Monitors
Specific Application: Emulates IBM 3270 Protocol
System Requirements: IBM PC: CP/M
Memory Required: 48.0K bytes
Source Language: Fortran
Purchase Terms: Purchase (license) - $750

REDDING GROUP, INC.
SYNCH 3270 - VERSION 1.3
Additional Product Classification: Communications/TP Monitors
Specific Application: Bisynchronous Communications
System Requirements: CP/M
Memory Required: 48.0K bytes
Source Code Available: No
Purchase Terms: Purchase (license) - $750

REMIS SYSTEMS, INC.
TELESTAR
Additional Product Classification: Communications/TP Monitors
Specific Application: Asynchronous Telecommunications Software for CP/M 80
System Requirements: CP/M 80
Memory Required: 64.0K bytes
Source Language: Assembler
Purchase Terms: Purchase (license) - $195
Number Installed to Date: 30
Date First Installed: April 1982
(See Vendor Profile Page V-25)

REMOTE COMPUTING CORP.
DIAL DATA
Additional Product Classification: Communications/TP Monitors, Interface
Specific Application: Interfaces Micro With Mainframe
Specific Industry: Banking/Financial
System Requirements: IBM PC: PC-DOS; Apple
Memory Required: 64 0K bytes
Source Language: Basic
Purchase Terms: Purchase (license) - $100
Number Installed to Date: 1,000
Date First Installed: 1981
(See Vendor Profile Page V-25)

RETI SYSTEMS SOFTWARE
3271/DD DEVICE DRIVER
Additional Product Classification: Program Generators/Aids, Application Development Tools, Communications/TP Monitors
Specific Application: IBM/RSX Communications Package
System Requirements: DEC PDP-11, RSX
Source Language: Macro
Purchase Terms: Purchase (license) - $2,700
Number Installed to Date: 2
Date First Installed: 1982
(See Vendor Profile Page V-25)

RETI SYSTEMS SOFTWARE
RFX-11 VERSION II (FILE TRANSFER UTILITY)
Additional Product Classification: Program Generators/Aids, Application Development Tools, Communications/TP Monitors
Specific Application: File Transfer and Virtual Terminal Utility
System Requirements: DEC PDP-11, RSX, DEC VAX, VMS
Memory Required: 5.0K bytes
Source Language: Macro
Purchase Terms: Purchase (license) - $675
Number Installed to Date: 300
Date First Installed: 1980

RETI SYSTEMS SOFTWARE
SCREENSHARE-11 TERMINAL MONITOR FACILITY
Additional Product Classification: Communications/TP Monitors
Specific Application: Terminal Monitoring for Remote Support, Troubleshooting, Supervision and Security
System Requirements: DEC PDP-11: RSX; DEC VAX: VMS
Source Language: Macro
Purchase Terms: Purchase (license) - $1,250
Number Installed to Date: 20
Date First Installed: 1981

ROTELCOM DATA, INC.
SATURN-SPECIAL SERVICES AND TRUNK UTILIZATION
Additional Product Classification: Communications/TP Monitors
Specific Application: Tracks Circuits and Trunk Utilization
Specific Industry: Telephone Industry
System Requirements: DEC VAX-11/780, VMS
Memory Required: 2.0M bytes
Source Language: Fortran
Purchase Terms: Purchase (license)
Date First Installed: 1983
(See Vendor Profile Page V-26)

RTOS/REAL-TIME COMPUTER SCIENCE CORP.
PC/ENET VERSION 1.0
Additional Product Classification: Communications/TP Monitors
Specific Application: Ethernet Application
System Requirements: IBM PC
Memory Required: 128.0K bytes
Source Language: Object, PL/M
Purchase Terms: Purchase (license) - $1,700
Number Installed to Date: 3
Date First Installed: March 1983
(See Vendor Profile Page V-26)

RUF CORP.
IMPRS COMMUNICATIONS SOFTWARE
Additional Product Classification: Communications/TP Monitors
Specific Application: Communications
System Requirements: DEC: RSTS/E; DEC: RT-11, RSX-11, VMS, IAS
Memory Required: 28.0K bytes
Source Language: Macro-11
Purchase Terms: Purchase (license) - $2,000
Number Installed to Date: 7
Date First Installed: 1981
(See Vendor Profile Page V-26)

SENSIBLE SOFTWARE, INC.
TELE-PORTER
Additional Product Classification: Communications/TP Monitors
Specific Application: Communication Package for Transferring Files and Diskettes Between Apples
System Requirements: Apple: Apple-DOS
Memory Required: 48.0K bytes
Source Language: Assembly
Source Code Available: No
Purchase Terms: Purchase (license) - $80
Number Installed to Date: 100
Date First Installed: July 1983
(See Vendor Profile Page V-26)

SGS SEMICONDUCTORS CORP.
DEC VAX COMMUNICATIONS
Additional Product Classification: Communications/TP Monitors
Specific Application: Electronic Mail for A DEC-VAX Based System
System Requirements: DEC VAX: Unix, Sunix
Memory Required: 512.0K bytes
Source Language: Basic, Cobol, Fortran , C
Purchase Terms: Purchase (license)
Number Installed to Date: 350
Date First Installed: January 1981
(See Vendor Profile Page V-26)

SGS SEMICONDUCTORS CORP.
HP 3000 COMMUNICATIONS
Additional Product Classification: Communications/TP Monitors
Specific Application: Electronic Mail for a HP 3000-Based System
System Requirements: HP 3000, Unix, Sunix
Memory Required: 512.0K bytes
Source Language: Basic, Cobol, Fortran , C
Purchase Terms: Purchase (license)
Number Installed to Date: 350
Date First Installed: January 1981

SGS SEMICONDUCTORS CORP.
IBM 3780 PROTOCOL
Additional Product Classification: Communications/TP Monitors
Specific Application: Electronic Mail
System Requirements: IBM 3780, Unix, Sunix
Memory Required: 512.0K bytes
Source Language: Assembler, Cobol, Fortran , C
Purchase Terms: Purchase (license)
Number Installed to Date: 350
Date First Installed: January 1981

SGS SEMICONDUCTORS CORP.
TELEX PLUX
Additional Product Classification: Communications/TP Monitors
Specific Application: Electronic Mail, Telex, D
System Requirements: Unix, Sunix
Memory Required: 512.0K bytes
Source Language: Cobol, Fortran , C, Assembler
Purchase Terms: Purchase (license)
Number Installed to Date: 350
Date First Installed: March 1983

SGS SEMICONDUCTORS CORP.
TELEX PLUX
Additional Product Classification: Communications/TP Monitors
Specific Application: Electronic Mail, Telex
System Requirements: Unix, Sunix
Memory Required: 512.0K bytes
Source Language: Cobol, Fortran, C, Assembler
Purchase Terms: Purchase (license)
Number Installed to Date: 350
Date First Installed: March 1983

SIECOR, INC.
TELECOMM
Additional Product Classification: Communications/TP Monitors
Specific Application: Allows Mobile Terminals to Interface With State Or National Computer
System Requirements: DG; HP; Durango
Memory Required: 256.0K bytes
Source Language: Assembler, Fortran
Purchase Terms: Purchase (license)
Number Installed to Date: 1
Date First Installed: 1982
(See Vendor Profile Page V-27)

SIECOR, INC.
TELECOMMUNICATIONS INTERFACE
Additional Product Classification: Communications/TP Monitors
Specific Application: Allows Police Departments to Talk to National Data

Base Networks
Specific Industry: Police Departments
System Requirements: HP 3000: MPE; DG CS 100: R-DOS; Burroughs 1800/1900; DEC PDP-11
Memory Required: 256.0K bytes
Source Language: Basic, Cobol
Purchase Terms: Purchase (license); Lease - $14,000 to $20,000
Number Installed to Date: 15
Date First Installed: May 1982

SMART, INC.
SERIES 1 ROLLER & CREDIT AUTHORIZATION SYSTEM
Additional Product Classification: Communications/TP Monitors
Specific Application: Communication Between POS and Mainframe, Performs Credit Authorization Functions
Specific Industry: Retail
System Requirements: IBM Series/1
Memory Required: 64.0K bytes
Source Language: Assembler
Purchase Terms: Purchase (license) - $20,000 to $80,000
Date First Installed: October 1983
(See Vendor Profile Page V-27)

SMITH EDUCATIONAL ENGINEERING SERVICES, INC.
ICOMM
Additional Product Classification: Communications/TP Monitors
Specific Application: Emulates Over 12 Terminals to Allow Access to Various Mainframes, Minis, and Other PCs
System Requirements: IBM PC: PC-DOS
Memory Required: 48.0K bytes
Source Language: Basic, Assembler
Source Code Available: No
Purchase Terms: Purchase (license) - $150
Number Installed to Date: 1,000
Date First Installed: February 1982
(See Vendor Profile Page V-27)

SOFTWARE AG OF NORTH AMERICA, INC.
COM-PLETE
Additional Product Classification: Communications/TP Monitors
Specific Application: Teleprocessing System
System Requirements: IBM System 370, MVS; IBM 43XX Series, OS-VS1; IBM 30XX Series, DOS/VSE
Memory Required: 512.0K bytes
Source Language: Assembler
(See Vendor Profile Page V-27)

SOFTWARE CLEARING HOUSE
VMOS
Additional Product Classification: Communications/TP Monitors
Specific Application: Allows i Applications to Run Under V
System Requirements: NCR V Series, VRX
Memory Required: 41.0K bytes
Source Language: VRX Cobol 74
Source Code Available: No
Purchase Terms: Purchase (license); Rental - $9,500
Number Installed to Date: 147
(See Vendor Profile Page V-27)

SOFTWARE CLEARING HOUSE
VIRTEX
Additional Product Classification: Communications/TP Monitors
Specific Application: Utility VRX Teleprocessing Monitor Includes Features Required to Develop New Systems from Scratch Under VRX
System Requirements: NCR V Series, VRX
Source Code Available: No
Purchase Terms: Purchase (license); Rental - $7,000 to $17,000
Number Installed to Date: 147

SOFTWARE & COMMUNICATION CONCEPTS, INC.
SOFTWARE & COMMUNICATIONS CONCEPT
Additional Product Classification: Communications/TP Monitors
Specific Application: Complete Front End Software
System Requirements: CDC, NOS
Source Language: Modcom
Purchase Terms: Purchase (license) - $100,000
Number Installed to Date: 12
Date First Installed: 1978
(See Vendor Profile Page V-27)

SOFTWARE DEVELOPMENT & MAINTENANCE, INC.
SDM/RPO ELECTRONIC REMOTE PURCHASE
Additional Product Classification: Communications/TP Monitors
Specific Application: Provides Electronic Purchase Order Interface Between Manufacturers and Retailers
Specific Industry: Manufacturing
System Requirements: Formation 4000: DOS/OS
Memory Required: 64.0K bytes
Source Language: Assembler
Purchase Terms: Purchase (license) - $5,000
Number Installed to Date: 2
Date First Installed: 1980
(See Vendor Profile Page V-27)

SOFTWARE DEVELOPMENT CORP.
DAGAR DTS-3
Additional Product Classification: Communications/TP Monitors
Specific Application: Transfer Files from One CP/M Based System to Another
System Requirements: CP/M
Memory Required: 48.0K bytes
Source Language: Cobol-80
Purchase Terms: Purchase (license) - $250
Date First Installed: February 1982
(See Vendor Profile Page V-27)

SOFTWARE DYNAMICS
MODEM
Additional Product Classification: Communications/TP Monitors
Specific Application: Remote Telephone Transmitter Through Telephone Links
System Requirements: Motorola: S-DOS, CP/M
Memory Required: 32.0K bytes
Source Code Available: No
Purchase Terms: Purchase (license) - $250
Number Installed to Date: 10
Date First Installed: January 1984
(See Vendor Profile Page V-27)

SOFTWARE DYNAMICS
SDNET
Additional Product Classification: Communications/TP Monitors
Specific Application: Shared Resources Microcomputer Network Software
System Requirements: Paltech ST Series: S-DOS; TRS-80: CP/M; Motorola
Memory Required: 64.0K bytes
Source Language: Assembly
Purchase Terms: Purchase (license) - $200
Number Installed to Date: 150
Date First Installed: March 1983

SOFTWARE MANAGEMENT SYSTEMS, INC.
MICROTALK
Additional Product Classification: Communications/TP Monitors
Specific Application: Interface IBM PC OR Victor 9000 to Prime Computers
System Requirements: IBM PC: MS-DOS, PC-DOS; Victor 9000: MS-DOS, PC-DOS, Prime Computers: Primos
Memory Required: 128.0K bytes
Source Language: Info Basic V
Source Code Available: No
Purchase Terms: Purchase (license) - $300
Number Installed to Date: 2
Date First Installed: July 1983
(See Vendor Profile Page V-27)

THE SOFTWARE STORE
SOFTCOM - TELECOMMUNICATIONS UTILITY
Additional Product Classification: Communications/TP Monitors
Specific Application: Telecommunications Utility for Smart Terminal and File Transfer
System Requirements: CP/M
Memory Required: 32.0K bytes
Source Language: Machine
Source Code Available: No
Purchase Terms: Purchase (license) - $150
Number Installed to Date: 2,000
Date First Installed: 1980
(See Vendor Profile Page V-28)

SOFTWARE SYSTEMS, INC.
5251 MODEL 12 WORK STATION EMULATOR
Additional Product Classification: Communications/TP Monitors
Specific Application: Enables IBM 5280 System to Operate On-Line to IBM System/34, System/36, System/38
System Requirements: IBM 5280: SCP
Memory Required: 64.0K bytes
Source Language: 5280 Assembler
Source Code Available: No
Purchase Terms: Purchase (license) - $500
Number Installed to Date: 150
Date First Installed: February 1982
(See Vendor Profile Page V-28)

SOFTWARE SYSTEMS, INC.
SYSTEM 34, 36, 38 EMULATOR TRANSFER
Additional Product Classification: Communications/TP Monitors
Specific Application: File Transfer Station from System/34, System/36, System/38 to IBM 5280
System Requirements: IBM System/34, System/36, System/38
Source Language: Assembler, RPG-II
Purchase Terms: Purchase (license) - $350 to $750
Number Installed to Date: 50
Date First Installed: February 1982

SOFTWORKS, INC.
VIRTUAL TERMINAL FACILITY
Additional Product Classification: Communications/TP Monitors
Specific Application: Accesses Any Local 3270 Terminal Multiple Teleprocessing Programs
System Requirements: IBM: OS
Memory Required: 512.0K bytes
Source Language: Assembler
Purchase Terms: Purchase (license); Lease - $7,500
Number Installed to Date: 25
Date First Installed: 1977
(See Vendor Profile Page V-28)

SOUTHERN COMPUTER SYSTEMS, INC.
MM-CP/M
Additional Product Classification: Communications/TP Monitors
Specific Application: Data Transfer from One Operating System to Another
System Requirements: CP/M
Memory Required: 16.0K bytes
Source Language: Assembly
Purchase Terms: Purchase (license) - $250
Number Installed to Date: 1,000
Date First Installed: 1979
(See Vendor Profile Page V-28)

SOUTHWESTERN DATA SYSTEMS, INC.
ASCI EXPRESS II
Additional Product Classification: Communications/TP Monitors
Specific Application: Apple Communications Package
System Requirements: Apple II, II+, IIE, DOS
Memory Required: 48.0K bytes
Source Language: Assembly
Purchase Terms: Purchase (license) - $35
(See Vendor Profile Page V-28)

SOUTHWESTERN DATA SYSTEMS, INC.
ASCI EXPRESS THE PROFESSIONAL
Additional Product Classification: Communications/TP Monitors

Specific Application: Apple-DOS Communication Package File Transfer, Supports Modems
System Requirements: Apple II, II+, IIE: DOS
Memory Required: 48.0K bytes
Source Language: Assembly
Source Code Available: No
Purchase Terms: Purchase (license) - $130

SOUTHWESTERN DATA SYSTEMS, INC.
CHLSE
Additional Product Classification: Communications/TP Monitors
Specific Application: Private Access Dial-up System - Apples Equipped With a Hayes Micromodem II
System Requirements: Apple II, II+, IIE: DOS
Memory Required: 48.0K bytes
Source Language: Assembly
Source Code Available: No
Purchase Terms: Purchase (license) - $90

SOUTHWESTERN DATA SYSTEMS, INC.
P-TERM THE PROFESSIONAL
Additional Product Classification: Communications/TP Monitors
Specific Application: Communications Package for Pascal
System Requirements: Apple II, II+, IIE, USCD-P System
Memory Required: 48.0K bytes
Source Language: Assembly, Pascal
Source Code Available: No
Purchase Terms: Purchase (license) - $130

SOUTHWESTERN DATA SYSTEMS, INC.
Z-TERM
Additional Product Classification: Communications/TP Monitors
Specific Application: Economical Terminal Package for CP/M Apple II With Microsoft Z-80 Soft Card
System Requirements: Apple II, II+, IIE: CP/M
Memory Required: 48.0K bytes
Source Language: Assembly
Source Code Available: No
Purchase Terms: Purchase (license) - $100

SOUTHWESTERN DATA SYSTEMS, INC.
Z-TERM THE PROFESSIONAL
Additional Product Classification: Communications/TP Monitors
Specific Application: Apple CP/M Communications Package, Apples With Microsoft Z-80 Soft Card
System Requirements: Apple II, IIE: Apple CP/M; Apple II+
Memory Required: 48.0K bytes
Source Language: Assembly
Purchase Terms: Purchase (license) - $150

SPARTACUS COMPUTERS, INC.
KNET
Additional Product Classification: Communications/TP Monitors
Specific Application: Networking System Based on TCP IP ARPA Protocol
System Requirements: IBM 4331: VM
Source Language: Assembly
Source Code Available: No
Purchase Terms: Purchase (license) - $15,000
Number Installed to Date: 1
Date First Installed: 1983
(See Vendor Profile Page V-26)

START SYSTEMS
AUTOPASS 3270TM
Additional Product Classification: Communications/TP Monitors
Specific Application: Communications Interface Between Wang VS and 3270, Host Processor Interfaces With CMS, TSO, CICS, IMS
System Requirements: Wang VS
Memory Required: 256 0K bytes
Source Language: Object, Procedure
Source Code Available: No
Purchase Terms: Purchase (license) - $15,000 to $60,000
Number Installed to Date: 2
Date First Installed: January 1982
(See Vendor Profile Page V-26)

STRATUS COMPUTER, INC.
3270 EMULATOR FACILITY
Additional Product Classification: Communications/TP Monitors
Specific Application: Facilities to Connect Stratus Computer to IBM Mainframe Using A Bisynchronous Protocol
System Requirements: Stratus/32, Stratus VOS
Source Language: PL/1
Source Code Available: No
Purchase Terms: Purchase (license) - $5,000
Date First Installed: September 1982
(See Vendor Profile Page V-28)

STRATUS COMPUTER, INC.
3270 TERMINAL SUPPORT
Additional Product Classification: Communications/TP Monitors
Specific Application: Connects 3270 Terminal to A Stratus Computer
System Requirements: Stratus/32, Stratus VOS
Source Language: PL/1
Source Code Available: No
Purchase Terms: Purchase (license) - $4,000
Date First Installed: June 1982

STRATUS COMPUTER, INC.
RJE-REMOTE JOB ENTRY
Additional Product Classification: Communications/TP Monitors
Specific Application: 2780/3780 Hasp Communications to Host Computers
System Requirements: Stratus/32, Stratus VOS
Source Language: PL/1
Source Code Available: No
Purchase Terms: Purchase (license) - $3,000
Date First Installed: March 1982

SUPERSOFT, INC.
TERM II
Additional Product Classification: Communications/TP Monitors
Specific Application: Allows CP/M Computer to Communicate With Other Terminal Users and Other Computers
System Requirements: CP/M
Memory Required: 32.0K bytes
Source Language: C
Source Code Available: No
Purchase Terms: Purchase (license) - $200
(See Vendor Profile Page V-28)

SYSTAR CORP.
GATEWAY 34/36
Additional Product Classification: Communications/TP Monitors
Specific Application: Communications Front-End Protocol Converter; X.25 Interface
System Requirements: IBM Series/1 - 4955, CMX; IBM 4954, IBM 4956
Memory Required: 256 0K bytes
Source Code Available: No
Purchase Terms: Purchase (license) - $22,000 to $34,000
Number Installed to Date: 15
Date First Installed: 1981
(See Vendor Profile Page V-29)

SYSTAR CORP.
GATEWAY/370
Additional Product Classification: Communications/TP Monitors
Specific Application: Communications Front-End Protocol Converter; X.25 Interface
System Requirements: IBM Series/1
Memory Required: 192.0K bytes
Source Language: Assembler
Source Code Available: No
Purchase Terms: Purchase (license) - $16,000

SYSTAR CORP.
LODESTAR 34/36
Additional Product Classification: Communications/TP Monitors
Specific Application: Communications Front End System
System Requirements: IBM Series/1
Memory Required: 384 0K bytes
Source Language: Assembler
Source Code Available: No
Purchase Terms: Purchase (license) - $40,000
Date First Installed: June 1982

THE SYSTEMS CENTER
NETWORK ACCESS SERVICES CORVUS
Additional Product Classification: Communications/TP Monitors
Specific Application: Allows Microprocessor Program to Attach to Corvus, Omninet to Communicate to SNA Processors
System Requirements: Corvus Concept; CCOS; IBM PC, MS-DOS; Apple Lisa: Lisa
Memory Required: 512.0K bytes
Source Language: Pascal
Source Code Available: No
Purchase Terms: Purchase (license)
Date First Installed: October 1983
(See Vendor Profile Page V-29)

THE SYSTEMS CENTER
NETWORK ACCESS SERVICES-SERIES/1
Additional Product Classification: Communications/TP Monitors
Specific Application: Allows Series/1 EDX Programs to Communicate Upstream With SNA Host Processor
System Requirements: IBM Series/1: EDX
Source Language: Assembler
Source Code Available: No
Purchase Terms: Purchase (license)
Date First Installed: October 1983

THE SYSTEMS CENTER, INC.
NETWORK DATAMOVER
Additional Product Classification: Communications/TP Monitors
Specific Application: Manages The Transfer Of Information Between Controllers, Mainframe to Mainframe, Mainframe to Series/1; Mainframe to Micro
System Requirements: IBM PC, MS-DOS; Apple Lisa, Apple-DOS; IBM System 370: MVS, IBM Series/1
Source Language: Assembly
Purchase Terms: Purchase (license)
Number Installed to Date: 10
Date First Installed: August 1983
(See Vendor Profile Page V-29)

THE SYSTEMS CENTER, INC.
SNA ON MICRO COMPUTERS
Additional Product Classification: Communications/TP Monitors
Specific Application: Supports Full IBM SNA Data Communications
Memory Required: 100.0K bytes
Source Language: Pascal
Purchase Terms: Purchase (license)
Date First Installed: May 1983

SYSTEM & SOFTWARE, INC.
NEXUS
Additional Product Classification: Communications/TP Monitors
Specific Application: Ties DEC PDP-11 or DEC VAX Together With Either an Intel MDS or MDS Under CP/M
System Requirements: DEC PDP-11, Isis II; DEC VAX: VMS, CP/M
Source Language: Assembler
Purchase Terms: Purchase (license) - $420
Number Installed to Date: 100
Date First Installed: September 1979
(See Vendor Profile Page V-29)

SYSTEMS RESOURCES CORP.
SNI 3270
Additional Product Classification: Communications/TP Monitors
Specific Application: Protocol Converter for The IBM 3276
System Requirements: IBM 4300: VM MVS; IBM 308X; IBM 370
Source Language: Assembler
Source Code Available: No
Purchase Terms: Purchase (license) - $6,500

Date First Installed: 1982
(See Vendor Profile Page V-29)

SYSTEMS STRATEGIES, INC.
2780/3780 EMULATOR
Additional Product Classification: Communications/TP Monitors
Specific Application: Provides 2780/3780 Batch to IBM Mainframe
Source Language: C Code
Purchase Terms: Purchase (license) - $47,000
Number Installed to Date: 5
(See Vendor Profile Page V-29)

SYSTEMS STRATEGIES, INC.
3270 BSC EMULATOR
Additional Product Classification: Communications/TP Monitors
Specific Application: Emulator 3270 BSC Device to IBM Mainframe
Source Language: C Code
Purchase Terms: Purchase (license) - $95,000
Number Installed to Date: 1

SYSTEMS STRATEGIES, INC.
3270 SNA EMULATOR
Additional Product Classification: Communications/TP Monitors
Specific Application: Emulator 3270 Cluster Controller to IBM Mainframe
Source Language: C Code
Purchase Terms: Purchase (license) - $13,000
Number Installed to Date: 5
Date First Installed: 1978

SYSTEMS STRATEGIES, INC.
X.25 INTERFACE
Additional Product Classification: Communications/TP Monitors
Specific Application: CCITT X.25 Standard Communications Interface
Source Language: C Code
Purchase Terms: Purchase (license) - $90,000
Number Installed to Date: 2

TAFT CONSULTING, INC.
TERRALINK
Additional Product Classification: Communications/TP Monitors
Specific Application: Interface Between Tandem and The Western Unidn Easy Link
System Requirements: Tandem Guardian
Source Language: TAL
Source Code Available: No
Purchase Terms: Purchase (license) - $5,000
Date First Installed: 1983
(See Vendor Profile Page V-29)

TECHNICO, INC.
SERIAL FILE TRANSFER PROGRAM
Additional Product Classification: Communications/TP Monitors
Specific Application: Allows the User to Upload and Download from A Host Computer
Specific Industry: Education, Scientific, Industrial Control
System Requirements: TI 9900
Memory Required: 4.0K bytes
Source Language: 9900 Assembler
Source Code Available: Yes
Purchase Terms: Purchase (license) - $100
Number Installed to Date: 80
Date First Installed: 1982
(See Vendor Profile Page V-29)

TEKELEC, INC.
CHAMELEON ASYNC
Additional Product Classification: Communications/TP Monitors
Specific Application: Stop-Start Protocol Simulator
System Requirements: Chameleon Data Communication
Memory Required: 64.0K bytes
Source Language: Assembly
Purchase Terms: Purchase (license) - $1,000
Number Installed to Date: 30
Date First Installed: 1983
(See Vendor Profile Page V-30)

TEKELEC, INC.
CHAMELEON BASIC
Additional Product Classification: Communications/TP Monitors
Specific Application: Simulator of Byte Protocol
System Requirements: Chameleon Data Communication
Memory Required: 64.0K bytes
Source Language: Assembly
Purchase Terms: Purchase (license) - $1,000
Number Installed to Date: 30
Date First Installed: 1983

TEKELEC, INC.
CHAMELEON SNYNC
Additional Product Classification: Communications/TP Monitors, Performance Measurement
Specific Application: Protocol Modeling
Specific Industry: Manufacturing, Engineering, Banking/Financial, Government
System Requirements: Chameleon
Source Language: Proprietary
Source Code Available: No
Purchase Terms: Purchase (license) - $1,000
Number Installed to Date: 55
Date First Installed: December 1982

TEKELEC, INC.
FRAMEM (FRAME LEVEL EMULATOR)
Additional Product Classification: Communications/TP Monitors, Performance Measurement
Specific Application: Protocol Modeling for Development and Test Purposes
Specific Industry: Manufacturing, Engineering, Banking/Financial, Government, Network Support
System Requirements: Chameleon
Source Language: Proprietary
Source Code Available: No
Purchase Terms: Purchase (license); Rental; Lease - $1,000
Number Installed to Date: 55
Date First Installed: April 1982

TEKELEC, INC.
FRAMEM
Additional Product Classification: Communications/TP Monitors
Specific Application: HDLC/SDLC Protocol Simulator
Memory Required: 64.0K bytes
Source Language: Assembler
Purchase Terms: Purchase (license) - $1,000
Number Installed to Date: 42
Date First Installed: 1982

TEKELEC, INC.
SNP/L
Additional Product Classification: Communications/TP Monitors
Specific Application: SNA Protocol Simulator
Memory Required: 64.0K bytes
Source Language: Assembly
Purchase Terms: Purchase (license) - $1,000
Number Installed to Date: 35
Date First Installed: 1983

TEKELEC, INC.
SNP/L (SIMULATOR INTERACTIVE MULTI-PROTOCOL
Additional Product Classification: Communications/TP Monitors
Specific Application: Protocol Modeling for Development and Use
Specific Industry: Manufacturing, Engineering, Banking/Financial, Government, Network Support/Development
Source Language: Proprietary
Source Code Available: No
Purchase Terms: Purchase (license) - $1,000
Number Installed to Date: 55
Date First Installed: December 1982

TEKELEC, INC.
SITREX
Additional Product Classification: Communications/TP Monitors
Specific Application: X.25 Network and Subscriber Simulator
Memory Required: 64.0K bytes
Source Language: Assembler
Purchase Terms: Purchase (license) - $2,000
Number Installed to Date: 225
Date First Installed: 1981

TEKELEC, INC.
SITREX-PLUS
Additional Product Classification: Communications/TP Monitors
Specific Application: X.25 Protocol Modeling
Specific Industry: Manufacturing, Engineering, Banking/Financial, Government, X.25 Network Support
Source Language: Proprietary
Purchase Terms: Purchase (license) - $1,000
Number Installed to Date: 300
Date First Installed: March 1980

TELCO RESEARCH CORP.
GENERAL COST ALLOCATION (GCA)
Additional Product Classification: System Resource Management, Communications/TP Monitors
Specific Application: Allocates Telecommunications Costs to Users
Specific Industry: Manufacturing, Engineering, Wholesale/Distribution, Retail, Banking/Financial, Medical, Legal, Insurance, Real Estate, Education, Construction, Government, Transportation
System Requirements: IBM; Honeywell; DEC PDP; RSX-11M
Memory Required: 100.0K bytes
Source Language: Cobol
Purchase Terms: Purchase (license) - $28,000
Date First Installed: April 1981
(See Vendor Profile Page V-30)

TELCO RESEARCH CORP.
MULTI-NODE TANDEM OPTYMIZER (MTO)
Additional Product Classification: Communications/TP Monitors
Specific Application: Design and Optimize Multiple Location Switched Networks
Specific Industry: Manufacturing, Engineering, Wholesale/Distribution, Retail, Banking/Financial, Medical, Legal, Insurance, Real Estate, Education, Construction, Government, Transportation
System Requirements: IBM; DEC 10, DEC 20; DEC VAX: VMS; DG MV8000
Memory Required: 100.0K bytes
Source Language: Fortran
Purchase Terms: Purchase (license)
Number Installed to Date: 35
Date First Installed: 1978

TELCO RESEARCH CORP.
THE ACD OPTYMIZER
Additional Product Classification: Communications/TP Monitors
Specific Application: Communications Package
Specific Industry: Manufacturing, Engineering, Wholesale/Distribution, Retail, Banking/Financial, Medical, Legal, Insurance, Real Estate, Education, Construction, Government, Transportation
System Requirements: IBM: OS/MVS; DEC 10: VM/CMS, DEC PDP-11
Source Language: Fortran, Assembly
Purchase Terms: Purchase (license) - $27,500
Date First Installed: 1978

TELCO RESEARCH CORP.
THE OPTYMIZER PLUS
Additional Product Classification: Communications/TP Monitors
Specific Application: Network Optimization
Specific Industry: Manufacturing, Engineering, Wholesale/Distribution, Retail, Banking/Financial, Medical, Legal, Insurance, Real Estate, Education, Construction, Government, Transportation
System Requirements: IBM; DEC VAX: VMS; Honeywell; Amdahl
Source Language: Fortran
Purchase Terms: Purchase (license) - $28,000
Date First Installed: 1978

TELCO RESEARCH CORP.
THE OPTYMIZER PLUS
Additional Product Classification: Communications/TP Monitors

Specific Application: Network Optimization
Specific Industry: Manufacturing, Engineering, Wholesale/Distribution, Retail, Banking/Financial, Medical, Legal, Insurance, Real Estate, Education, Construction, Government, Transportation
System Requirements: IBM; DEC VAX: VMS; Honeywell; Amdahl
Source Language: Fortran
Purchase Terms: Purchase (license) - $28,800
Date First Installed: 1979

TELCO RESEARCH CORP.
TRU DATA RECORDER/POLLER
Additional Product Classification: Communications/TP Monitors
Specific Application: Data Capture for Call Detail
Specific Industry: Manufacturing, Engineering, Wholesale/Distribution, Retail, Banking/Financial, Medical, Legal, Insurance, Education, Construction, Government, Transportation
System Requirements: IBM PC; IBM PC-XT
Memory Required: 256.0K bytes
Purchase Terms: Purchase (license) - $12,500 to $14,500

TELEPHONE SOFTWARE CONNECTION, INC.
ANSWERING MACHINE
Additional Product Classification: Communications/TP Monitors
Specific Application: Answers Modem Calls, Handles Incoming Outgoing Messages
System Requirements: Apple II, II+, IIE: DOS 3.3
Memory Required: 48.0K bytes
Source Language: Applesoft
Source Code Available: No
Purchase Terms: Purchase (license) - $40
(See Vendor Profile Page V-30)

TELEPHONE SOFTWARE CONNECTION, INC.
PHONE SECRETARY II
Additional Product Classification: Communications/TP Monitors
Specific Application: Places Calls and Keeps A Log of Activity
System Requirements: Apple II, II+, IIE: DOS 3.3
Memory Required: 48.0K bytes
Source Language: Applesoft W6502
Source Code Available: No
Purchase Terms: Purchase (license) - $45

TELEPHONE SOFTWARE CONNECTION, INC.
PICTURE TRANSFER PROGRAM
Additional Product Classification: Communications/TP Monitors
Specific Application: Sends Graphics Picture Over Phone
System Requirements: Apple II, II+, IIE: DOS 3.3
Memory Required: 48.0K bytes
Source Language: Applesoft
Purchase Terms: Purchase (license) - $40

TELEPHONE SOFTWARE CONNECTION, INC.
TELEPHONE TRANSFER II
Additional Product Classification: Communications/TP Monitors
Specific Application: Sends All DOS 3 3 File Types Over the Phone to Another Apple
System Requirements: Apple II, II+, IIE: DOS 3.3
Memory Required: 48.0K bytes
Source Language: Applesoft W6502
Source Code Available: No
Purchase Terms: Purchase (license) - $80

TELEPHONE SOFTWARE CONNECTION, INC.
TERMINAL PROGRAM
Additional Product Classification: Communications/TP Monitors
Specific Application: Intelligent Terminal Program With Automatic Log On and 18K Capture Buffer
System Requirements: Apple II, II+,IIE: DOS 3.3
Memory Required: 48.0K bytes
Source Language: Applesoft W6502
Source Code Available: No
Purchase Terms: Purchase (license) - $40

TEXAS INSTRUMENTS, INC.
TERMINAL EMULATOR II
Additional Product Classification: Communications/TP Monitors
Specific Application: Terminal Emulation
System Requirements: TI 99/4
Source Code Available: No
Purchase Terms: Purchase (license) - $50
(See Vendor Profile Page V-30)

TICOM SYSTEMS, INC.
REMCOM
Additional Product Classification: Communications/TP Monitors
Specific Application: Comprehensive Asynchronous Communications Package
System Requirements: IBM PC; DEC Rainbow: UCSD-P; NEC APC; TI
Memory Required: 64.0K bytes
Source Language: Pascal
Source Code Available: No
Purchase Terms: Purchase (license) - $95
Date First Installed: 1981
(See Vendor Profile Page V-31)

TITN
TITN X.25 VERSION 1.0
Additional Product Classification: Communications/TP Monitors
Specific Application: Provides Minicomputer Access for Long-Haul Data Network
System Requirements: Intel; Fortune; Altos; Apollo
Memory Required: 64.0K bytes
Source Language: C
Purchase Terms: Purchase (license)
Number Installed to Date: 30,000
Date First Installed: August 1983
(See Vendor Profile Page V-31)

TNW CORP.
PTWX
Additional Product Classification: Communications/TP Monitors
Specific Application: Telex II (TWX) Terminal Software
System Requirements: Commodore Pet
Memory Required: 8.0K bytes
Source Language: Basic
Purchase Terms: Purchase (license) - $99
Date First Installed: 1980
(See Vendor Profile Page V-31)

TNW CORP.
XPTERM
Additional Product Classification: Communications/TP Monitors
Specific Application: Smart Terminal Software
System Requirements: Commodore Pet
Memory Required: 32.0K bytes
Source Language: Basic
Purchase Terms: Purchase (license) - $49 to $59
Date First Installed: 1980

TOP DOWN SYSTEMS
INTF 3270
Additional Product Classification: Communications/TP Monitors
Specific Application: Software Interface for Terminal Monitor to Another Systems Monitor
System Requirements: IBM: CP/M, DOS, VS, MVS
Memory Required: 256.0K bytes
Source Language: Assembly
Purchase Terms: Purchase (license); Rental; Lease - $8,125
Number Installed to Date: 25
Date First Installed: 1982
(See Vendor Profile Page V-31)

TOP DOWN SYSTEMS
TERMINAL MONITOR
Additional Product Classification: Communications/TP Monitors
Specific Application: Management Facility for Application Programs
System Requirements: IBM: CP/M, DOS, VS, MVS
Memory Required: 256.0K bytes
Source Language: Assembly
Purchase Terms: Purchase (license); Rental; Lease - $39,375
Date First Installed: 1972

TOP DOWN SYSTEMS
VTAM 3270
Additional Product Classification: Communications/TP Monitors
Specific Application: Interface for Terminal Monitor to VTAM
System Requirements: IBM Mainframes: CP/M, DOS, VS, MVS
Memory Required: 256.0K bytes
Source Language: Assembly
Purchase Terms: Purchase (license); Rental; Lease - $8,125
Number Installed to Date: 25
Date First Installed: 1980

TRANSACTION DATA SYSTEMS, INC.
PACKET NETWORK FACILITY
Additional Product Classification: Communications/TP Monitors
Specific Application: Provides Interface Between Multiple Processors
System Requirements: PE 3200; Ohio Scientific 32
Memory Required: 500.0K bytes
Source Language: Assembly
Purchase Terms: Purchase (license) - $5,000
Number Installed to Date: 3
Date First Installed: 1979
(See Vendor Profile Page V-31)

TRANSACTION DATA SYSTEMS, INC.
STAT-MUX SUPPORT FACILITY
Additional Product Classification: Communications/TP Monitors
Specific Application: Provides A Software Statistical Interface to Remote Multiplexers
System Requirements: PE 3200, Ohio Scientific 32
Memory Required: 500.0K bytes
Source Language: Assembly
Purchase Terms: Purchase (license) - $5,000
Number Installed to Date: 2
Date First Installed: 1981

TRANSEND CORP.
TRANSEND I
Additional Product Classification: Communications/TP Monitors
Specific Application: Communication, Send and Receive Messages
System Requirements: Apple II: DOS; Apple IIE: DOS
Source Language: Assembly, Basic
Purchase Terms: Purchase (license) - $59
Number Installed to Date: 1,000
Date First Installed: 1981
(See Vendor Profile Page V-31)

TRANSEND CORP.
TRANSEND II
Additional Product Classification: Communications/TP Monitors
Specific Application: Send and Receive Messages, Verify File Transfer
System Requirements: Apple II: DOS; Apple IIE: DOS
Source Language: Assembly, Basic
Purchase Terms: Purchase (license) - $149
Number Installed to Date: 1,000
Date First Installed: 1981

TRANSEND CORP.
TRANSEND III
Additional Product Classification: Communications/TP Monitors
Specific Application: Electronic Mail
System Requirements: Apple II; DOS; Apple IIE: DOS
Source Language: Assembly, Basic
Purchase Terms: Purchase (license) - $149
Number Installed to Date: 1,000
Date First Installed: 1981

TRANSEND CORP.
TRANSEND III
Additional Product Classification: Communications/TP Monitors

Specific Application: Electronic Mail
System Requirements: Apple II: DOS; Apple IIE: DOS
Source Language: Assembly, Basic
Source Code Available: No
Purchase Terms: Purchase (license) - $275
Number Installed to Date: 1,000
Date First Installed: 1983

TRANSEND CORP.
TRANSEND PC
Additional Product Classification: Communications/TP Monitors
Specific Application: Electronic Mail
System Requirements: IBM PC; MS-DOS
Source Language: Assembly
Source Code Available: No
Purchase Terms: Purchase (license) - $199
Date First Installed: August 1983

UNIQUE AUTOMATION PRODUCTS
RJE REMOTE JOB ENTRY SOFTWARE
Additional Product Classification: Communications/TP Monitors
Specific Application: Telecommunications
System Requirements: DEC PDP-11, RSX, RT-11
Source Code Available: No
Purchase Terms: Purchase (license) - $1,950 to $2,250
Number Installed to Date: 100
Date First Installed: January 1979
(See Vendor Profile Page V-32)

UNIQUE AUTOMATION PRODUCTS
UAP-LINK
Additional Product Classification: Communications/TP Monitors
Specific Application: Telecommunications File Transfer
System Requirements: DEC PDP-11; IBM PC: PC-DOS, IBM 370, TSO
Source Code Available: No
Purchase Terms: Purchase (license) - $250 to $1,500
Number Installed to Date: 50
Date First Installed: July 1982

UNIQUE AUTOMATION PRODUCTS
UAP-LINK FILE TRANSFER SOFTWARE
Additional Product Classification: Communications/TP Monitors
Specific Application: Telecommunications File Transfer
System Requirements: DEC PDP-11; RT-11; DEC VAX: VMS, IBM PC, MS-DOS; IBM Mainframes: TSO
Source Code Available: No
Purchase Terms: Purchase (license) - $250
Number Installed to Date: 40
Date First Installed: June 1982

UNISOFT SYSTEM CORP.
S-NET
Additional Product Classification: Communications/TP Monitors
Specific Application: Networking
System Requirements: Unix
Memory Required: 156.0K bytes
Source Language: C
Purchase Terms: Purchase (license) - $400
Number Installed to Date: 10
Date First Installed: March 1983
(See Vendor Profile Page V-32)

UNIVERSITY COMPUTING CO.
UCC MBA-MICROCOMPUTER SOFTWARE
Additional Product Classification: Financial Modeling Languages/DSS, WP/Text Editing, DBMS, Graphics, Communications/TP Monitors
Specific Application: Spreadsheet Modeling, Graphics, WP, Data Base Forms Generation
Specific Industry: Manufacturing
System Requirements: IBM PC: MP 5816
Memory Required: 256.0K bytes
Source Code Available: No
Purchase Terms: Purchase (license)
Number Installed to Date: 2,000
(See Vendor Profile Page V-32)

USMA COMPUTER CO.
COMMUNICATIONS PACKAGE
Additional Product Classification: Communications/TP Monitors
Specific Application: Asynchronous Communications With an IBM PC and Hayes Smart Modem, Supports 132 Column Reports
System Requirements: IBM PC, PC-DOS
Memory Required: 64.0K bytes
Source Language: Basic
Purchase Terms: Purchase (license) - $200
Number Installed to Date: 3
Date First Installed: January 1983
(See Vendor Profile Page V-32)

USMA COMPUTER CO.
IBM PC COM
Additional Product Classification: Communications/TP Monitors
Specific Application: Communication With Time-sharing Firms and Data Bases
System Requirements: IBM PC: PC-DOS
Memory Required: 64.0K bytes
Source Language: Basic
Source Code Available: Yes
Purchase Terms: Purchase (license) - $200
Number Installed to Date: 5
Date First Installed: January 1983

VAN ANDURS & ASSOCIATES, INC.
TAC SOFT
Additional Product Classification: Communications/TP Monitors
Specific Application: User-Defined Technical Assistance Center Support Package Supports Maintenance of Company and PBX Switching Equipment
Specific Industry: Telephone
System Requirements: DG Eclipse: AOS
Memory Required: 760.0K bytes
Source Language: SP/Pascal, Assembler
Purchase Terms: Purchase (license)
Number Installed to Date: 1
Date First Installed: 1983
(See Vendor Profile Page V-32)

VISICORP
VISIANSWER
Additional Product Classification: Communications/TP Monitors
Specific Application: Communications Package
System Requirements: IBM PC; PC-DOS
Purchase Terms: Purchase (license)
(See Vendor Profile Page V-32)

VISICORP
VISITERM
Additional Product Classification: System Resource Management, Communications/TP Monitors
Specific Application: Terminal Emulation, Product Turns PC Into Dumb Terminal
System Requirements: Apple II; III: Apple-DOS; IBM PC: PC-DOS, Commodore; Atari 800
Purchase Terms: Purchase (license) - $100

WILD HARE COMPUTER SYSTEMS, INC.
HARE/NET
Additional Product Classification: Communications/TP Monitors
Specific Application: Local-Area Network Software
System Requirements: Hare Brain Work Station: MCS
Source Code Available: No
Purchase Terms: Purchase (license) - $2,000
Number Installed to Date: 4
Date First Installed: June 1983
(See Vendor Profile Page V-33)

WINTERHALTER, INC.
MS3670 AND MS3700
Additional Product Classification: Communications/TP Monitors
Specific Application: Micro to Mainframe Communications Programs (Emulation)
System Requirements: CP/M
Memory Required: 56.0K bytes
Source Language: C
Source Code Available: $8,000
Purchase Terms: Purchase (license)
(See Vendor Profile Page V-33)

ZANAZ COMMUNICATIONS, INC.
TRANSLATION EXPRESS
Additional Product Classification: Communications/TP Monitors
Specific Application: Intercomputer File Transfer
System Requirements: Televideo: CP/M; DEC VAX: VMS; DEC PDP-11/23: Unix; TI 990: DSX
Source Language: C
Purchase Terms: Purchase (license) - $500
Number Installed to Date: 23
Date First Installed: March 1982
(See Vendor Profile Page V-33)

ZIMON ASSOCIATES, INC.
TAP
Additional Product Classification: Communications/TP Monitors
Specific Application: Traffic Analysis Program, Communication Network Design
Specific Industry: Telecommunications
System Requirements: CP/M
Memory Required: 56.0K bytes
Source Language: Cobol, Basic, Assembler
Purchase Terms: Purchase (license); Rental, Lease - $1,000
Number Installed to Date: 12
Date First Installed: 1979
(See Vendor Profile Page V-33)

FACSIMILE DEVICES

Index to Facsimile Devices

Facsimile devices are systems which are used for the transmission of images. There are three basic types of facsimile devices — transmitters, receivers and transceivers, which can both send and receive images. The index listings are arranged alphabetically by vendor and include the price, device type and the page number on which the complete product listing can be found.

VENDOR	MODEL	TRANSMISSION TECHNIQUE	PRICE	PAGE
Alden Electronics, Inc.	16 X 22 FACSIMILE SYSTEM	Stand-alone Transmitter	$11,750	C-46
	SIGMA FAX	Stand-alone Transmitter	$6,600	C-46
Burroughs Corp.	DEX 1103	Transceiver	$1,500	C-46
	DEX 1402	Transceiver	$2,000	C-46
	DEX 2100	Transceiver	$2,995	C-46
	DEX 3200	Transceiver	$3,995	C-46
	DEX 3500	Transceiver	$3,500	C-46
	DEX 3600	Transceiver	$3,695	C-46
Canon U.S.A., Inc.	FAX 31	Transceiver	$1,995	C-46
	FAX 320E	Transceiver	$5,995	C-46
	FAX 330	Transceiver	$4,495	C-46
	FAX 401	Transceiver	$3,795	C-46
Exxon Enterprises	1200	Transceiver	$1,495	C-46
	1300 CWP	Transceiver	$1,495	C-46
	2000/2150	Transceiver	$2,375 to $3,375	C-46
	2210 CWP	Transceiver	$2,995	C-46
	2310 CWP	Transceiver	$5,845 to $6,745	C-46
Infofax	DIAL ACCESS RECEIVER	Receiver	$500	C-46
	DIAL ACCESS TRANSMITTER	Stand-alone Transmitter	$500	C-46
	PRIVATE LINE RECEIVER	Receiver	$500	C-46
	PRIVATE LINE TRANSMITTER	Transceiver	$500	C-46
Mitsubishi Electronics America, Inc.	FA-585G	Transceiver	$8,500	C-46
NEC Telephone, Inc.	NEFAX 3C	Transceiver	$11,500	C-46
	NEFAX 3S	Transceiver	$4,400	C-46
	NEFAX 3SE	Transceiver	$4,800	C-46
	NEFAX 3SH	Transceiver	$4,800	C-46
	NEFAX 3T	Transceiver	$6,200	C-46
	NEFAX 8	Transceiver	$2,100	C-46
Panafax Corp.	MV-1200	Transceiver	$1,975	C-46
	MV-3000	Transceiver	$6,250	C-46
	MV-3000WL	Transceiver	$7,000	C-46
	PX-100	Transceiver	$4,495	C-46
Pitney Bowes	8300	Transceiver	$2,695	C-46
	8400	Transceiver	$4,995	C-46
	8500	Transceiver	$4,995	C-46
	8600	Transceiver	$6,995	C-46
	8800	Transceiver	$8,995	C-46
Raytheon, Inc.	3100	Transceiver	$3,795	C-46
	3300	Transceiver	$5,000	C-46
	5000	Transceiver	$9,950	C-46
	6100	Transceiver	$5,000	C-46
	6300	Transceiver	$7,940	C-46
	6300R	Receiver	$4,460	C-46
	6350	Stand-alone Transmitter	$4,420	C-46
Sanyo Business Sys. Corp.	SF 615	Transceiver	N/A	C-46
	SF 625	Transceiver	N/A	C-46
	SF 935	Transceiver	$4,700	C-46
Telautograph Corp.	G21	Transceiver	$2,100	C-46
	G32	Transceiver	$3,500	C-46
	G39	Transceiver	$4,500	C-46
	G96	Transceiver	$6,000	C-46
	G99	Transceiver	N/A	C-46
Xerox Corp.	TC 295	Transceiver	$4,800	C-46
	TC 400	Transceiver	$1,695	C-46
	TC 455	Transceiver	$2,195	C-46
	TC 485	Transceiver	$4,195	C-46
	TC 495-1	Transceiver	$8,700	C-46
3M Co.	606	Transceiver	$1,995	C-46
	611	Transceiver	$4,450	C-46
	1000	Transceiver	$2,550	C-46
	2700	Transceiver	$4,450	C-46
	9140	Transceiver	$2,600	C-46
	9145	Transceiver	$3,700	C-46
	6165	Transceiver	$6,500	C-46

Facsimile Devices

ALDEN ELECTRONICS, INC.
16 X 22 FACSIMILE SYSTEM
Device Type: Stand-alone Transmitter, Receiver
Transmission Signal: Analog
Graphics Capability: Yes
Price: $11,750
Date First Installed: September 1976
(See Vendor Profile Page V-1)

ALDEN ELECTRONICS, INC.
SIGMA FAX
Device Type: Stand-alone Transmitter, Receiver
Transmission Signal: Analog
Graphics Capability: No
Price: $6,600

BURROUGHS CORP.
DEX 1163
Device Type: Transceiver
Transmission Signal: Analog
Graphics Capability: Yes
Price: $1,500
Date First Installed: June 1978
(See Vendor Profile Page V-4)

BURROUGHS CORP.
DEX 1462
Device Type: Transceiver
Transmission Signal: Analog
Graphics Capability: Yes
Price: $2,000
Date First Installed: June 1979

BURROUGHS CORP.
DEX 2160
Device Type: Transceiver
Transmission Signal: Analog
Graphics Capability: Yes
Price: $2,995
Date First Installed: September 1981

BURROUGHS CORP.
DEX 3360
Device Type: Transceiver
Transmission Signal: Digital
Graphics Capability: Yes
Price: $3,995
Date First Installed: November 1983

BURROUGHS CORP.
DEX 3660
Device Type: Transceiver
Transmission Signal: Digital
Graphics Capability: Yes
Price: $3,500
Date First Installed: September 1982

BURROUGHS CORP.
DEX 3960
Device Type: Transceiver
Transmission Signal: Digital
Graphics Capability: Yes
Price: $3,995
Date First Installed: September 1981

CANON U.S.A., INC.
FAX 31
Device Type: Transceiver
Transmission Signal: Analog
Graphics Capability: No
Price: $1,995
Date First Installed: June 1983
(See Vendor Profile Page V-5)

CANON U.S.A., INC.
FAX 330E
Device Type: Transceiver
Transmission Signal: Analog, Digital
Graphics Capability: Yes
Price: $5,995
Date First Installed: January 1984

CANON U.S.A., INC.
FAX 330
Device Type: Transceiver
Transmission Signal: Analog, Digital
Graphics Capability: Yes
Price: $4,495
Date First Installed: September 1983

CANON U.S.A., INC.
FAX 401
Device Type: Transceiver
Transmission Signal: Analog, Digital
Graphics Capability: Yes
Price: $3,795
Date First Installed: January 1981

EXXON ENTERPRISES
1200
Device Type: Transceiver
Transmission Signal: Analog
Graphics Capability: Yes
Price: $1,495
Date First Installed: December 1975
(See Vendor Profile Page V-12)

EXXON ENTERPRISES
1200 CWP
Device Type: Transceiver
Transmission Signal: Analog
Graphics Capability: Yes
Price: $1,495
Date First Installed: July 1978

EXXON ENTERPRISES
2000/2150
Device Type: Transceiver
Transmission Signal: Analog
Graphics Capability: Yes
Price: $2,375 to $3,375
Date First Installed: February 1980

EXXON ENTERPRISES
2210 CWP
Device Type: Transceiver
Transmission Signal: Digital
Graphics Capability: Yes
Price: $2,995
Date First Installed: 1983

EXXON ENTERPRISES
2310 CWP
Device Type: Transceiver
Transmission Signal: Digital
Graphics Capability: Yes
Price: $5,845 to $6,745
Date First Installed: June 1982

HIPOLINK
DIAL ACCESS RECEIVER
Device Type: Receiver
Transmission Signal: Analog, Digital
Graphics Capability: Yes
Price: $500
Date First Installed: January 1970
(See Vendor Profile Page V-15)

HIPOLINK
DIAL ACCESS TRANSMITTER
Device Type: Stand-alone Transmitter
Transmission Signal: Analog, Digital
Graphics Capability: Yes
Price: $500
Date First Installed: January 1970

HIPOLINK
PRIVATE LINE RECEIVER
Device Type: Receiver
Transmission Signal: Analog, Digital
Graphics Capability: Yes
Price: $500
Date First Installed: January 1970

HIPOLINK
PRIVATE LINE TRANSMITTER
Device Type: Transceiver
Transmission Signal: Analog, Digital
Graphics Capability: Yes
Price: $500
Date First Installed: January 1970

MITSUBISHI ELECTRONICS AMERICA, INC.
FA-985G
Device Type: Transceiver
Transmission Signal: Digital
Graphics Capability: Yes
Price: $8,500
Date First Installed: January 1982
(See Vendor Profile Page V-20)

NEC TELEPHONE, INC.
NEFAX 3C
Device Type: Transceiver
Transmission Signal: Digital
Graphics Capability: Yes
Price: $11,500
Date First Installed: January 1981
(See Vendor Profile Page V-21)

NEC TELEPHONE, INC.
NEFAX 3S
Device Type: Transceiver
Transmission Signal: Digital
Graphics Capability: Yes
Price: $4,400
Date First Installed: June 1983

NEC TELEPHONE, INC.
NEFAX 36E
Device Type: Transceiver
Transmission Signal: Digital
Graphics Capability: Yes
Price: $4,800
Date First Installed: June 1983

NEC TELEPHONE, INC.
NEFAX 36N
Device Type: Transceiver
Transmission Signal: Digital
Graphics Capability: Yes
Price: $4,800
Date First Installed: June 1983

NEC TELEPHONE, INC.
NEFAX 37
Device Type: Transceiver
Transmission Signal: Digital
Graphics Capability: Yes
Price: $9,200
Date First Installed: June 1981

NEC TELEPHONE, INC.
NEFAX 6
Device Type: Transceiver
Transmission Signal: Digital
Graphics Capability: Yes
Price: $2,100
Date First Installed: October 1983

PANAFAX CORP.
MV-99
Device Type: Transceiver
Transmission Signal: Analog
Graphics Capability: Yes
Price: $1,975
Date First Installed: September 1979
(See Vendor Profile Page V-23)

PANAFAX CORP.
MV-3000
Device Type: Transceiver
Transmission Signal: Digital
Graphics Capability: Yes
Price: $8,250
Date First Installed: May 1982

PANAFAX CORP.
MV-3000WL
Device Type: Transceiver
Transmission Signal: Digital
Graphics Capability: Yes
Price: $7,000
Date First Installed: May 1982

PANAFAX CORP.
PX-100
Device Type: Transceiver
Transmission Signal: Digital
Graphics Capability: Yes
Price: $4,495
Date First Installed: June 1983

PITNEY BOWES
8300
Device Type: Transceiver
Transmission Signal: Analog
Graphics Capability: Yes
Price: $2,995
Date First Installed: September 1982
(See Vendor Profile Page V-24)

PITNEY BOWES
8400
Device Type: Transceiver
Transmission Signal: Analog
Graphics Capability: Yes
Price: $4,995
Date First Installed: September 1982

PITNEY BOWES
3200
Device Type: Transceiver
Transmission Signal: Analog, Digital
Graphics Capability: Yes
Price: $4,995
Date First Installed: September 1983

PITNEY BOWES
3600
Device Type: Transceiver
Transmission Signal: Analog, Digital
Graphics Capability: Yes
Price: $6,995
Date First Installed: September 1982

PITNEY BOWES
8800
Device Type: Transceiver
Transmission Signal: Analog, Digital
Price: $8,995
Date First Installed: September 1982

Learn more about Personal Computing, Office Automation or Communications in these video journals from CW Communications and Deltak.

Personal Computing: A Business Perspective
Taped on location during CW Communications' COMPUTERWEEK conference, these six video sessions feature many of the biggest names in the microcomputer industry as they share their insights into the application of personal computers in the business environment. Each of the six tapes is 20-30 minutes long, and focuses on a specific issue. Available through Deltak singly or as a group.

- *Thinking Small for Big Business*
- *The Purchase Decision*
- *Finding a Vendor*
- *Sales Trends and IBM*
- *New Languages and Networking*
- *A Look Toward the Future*

Office Automation: The Essential Issues
Last Fall, executives from around the country attended the OA Forum, a national conference conducted by CW Communications on the introduction, integration and implementation of office automation in today's business environment. Leading industry experts and top corporate managers discussed key office automation planning issues. These discussions are now available to you in seven carefully edited conference journals. Each journal is in full color, and 20-30 minutes long. They are available from Deltak singly or in a group.

- *The DP Role in Office Automation*
- *Planning for Office Automation*
- *The Fundamentals of Integration*
- *Some Specifics of Integration*
- *The Executive Workstation*
- *One Company's Experience*
- *Introducing Office Automation to Your Organization*

Communications
Leading experts in all areas of communications were taped at the 1983 Communication Networks Conference in New Orleans. The result was two brand new video conference journals of key interest to all levels of corporate and technical understanding:

- Communication Networks: Alternatives for the 80's
- Local Area Networks: The major considerations

All of these useful journals are available through Deltak, Inc., 1751 Diehl Road, Naperville, IL 60566. To get more information, or to find out about rentals, just call Deltak Order-Entry at (312) 369-3000 (in Canada, (416) 678-9222), or check the white pages of your telephone directory for the Deltak office nearest you.

CW COMMUNICATIONS/INC.
Publishes of Computerworld, InfoWorld, PC World, MICRO MARKETWORLD, and other leading computer publications around the world.

Facsimile Devices

RAPICOM, INC.
3100
Device Type: Transceiver
Transmission Signal: Digital
Graphics Capability: Yes
Price: $3,795
Date First Installed: January 1982
(See Vendor Profile Page V-25)

RAPICOM, INC.
3200
Device Type: Transceiver
Transmission Signal: Digital
Graphics Capability: Yes
Price: $5,000
Date First Installed: January 1982

RAPICOM, INC.
6000
Device Type: Transceiver
Transmission Signal: Digital
Graphics Capability: Yes
Price: $6,950

RAPICOM, INC.
6100
Device Type: Transceiver
Transmission Signal: Digital
Graphics Capability: Yes
Price: $5,000
Date First Installed: October 1981

RAPICOM, INC.
3300
Device Type: Transceiver
Transmission Signal: Digital
Graphics Capability: Yes
Price: $7,940
Date First Installed: January 1981

RAPICOM, INC.
6300R
Device Type: Receiver
Transmission Signal: Digital
Graphics Capability: Yes
Price: $4,450
Date First Installed: January 1981

RAPICOM, INC.
6300
Device Type: Stand-alone Transmitter
Transmission Signal: Digital
Graphics Capability: Yes
Price: $4,420
Date First Installed: January 1981

SANYO BUSINESS SYSTEMS CORP.
SF 915
Device Type: Transceiver
Transmission Signal: Analog, Digital
Graphics Capability: Yes
Date First Installed: March 1984
(See Vendor Profile Page V-28)

SANYO BUSINESS SYSTEMS CORP.
SF 935
Device Type: Transceiver
Transmission Signal: Analog, Digital
Graphics Capability: Yes
Date First Installed: March 1984

SANYO BUSINESS SYSTEMS CORP.
SF 936
Device Type: Transceiver
Transmission Signal: Analog, Digital
Graphics Capability: Yes
Price: $4,700
Date First Installed: 1983

TELAUTOGRAPH CORP.
G21
Device Type: Transceiver
Transmission Signal: Analog
Graphics Capability: Yes
Price: $2,100
(See Vendor Profile Page V-30)

TELAUTOGRAPH CORP.
G32
Device Type: Transceiver
Transmission Signal: Digital
Graphics Capability: Yes
Price: $3,500
Date First Installed: January 1981

TELAUTOGRAPH CORP.
G30
Device Type: Transceiver
Transmission Signal: Digital
Graphics Capability: Yes
Price: $4,500
Date First Installed: January 1983

TELAUTOGRAPH CORP.
G60
Device Type: Transceiver
Transmission Signal: Digital
Graphics Capability: Yes
Price: $6,000
Date First Installed: January 1982

TELAUTOGRAPH CORP.
G90
Device Type: Transceiver
Transmission Signal: Digital
Date First Installed: March 1984

XEROX CORP.
TC 295
Device Type: Transceiver
Transmission Signal: Digital
Graphics Capability: Yes
Price: $4,800
Date First Installed: October 1983
(See Vendor Profile Page V-33)

XEROX CORP.
TC 400
Device Type: Transceiver
Transmission Signal: Analog
Graphics Capability: Yes
Price: $1,695
Date First Installed: January 1971

XEROX CORP.
TC 485
Device Type: Transceiver
Transmission Signal: Analog
Graphics Capability: Yes
Price: $2,195
Date First Installed: June 1981

XEROX CORP.
TC 486
Device Type: Transceiver
Transmission Signal: Analog
Graphics Capability: Yes
Price: $4,195
Date First Installed: August 1979

XEROX CORP.
TC 486-1
Device Type: Transceiver
Transmission Signal: Digital
Graphics Capability: Yes
Price: $6,700
Date First Installed: June 1981

3M CO.
600
Device Type: Transceiver
Transmission Signal: Analog, Digital
Graphics Capability: Yes
Price: $1,995
Date First Installed: June 1979
(See Vendor Profile Page V-34)

3M CO.
611
Device Type: Transceiver
Transmission Signal: Analog, Digital
Graphics Capability: Yes
Price: $4,450
Date First Installed: June 1981

3M CO.
1000
Device Type: Transceiver
Transmission Signal: Analog
Graphics Capability: Yes
Price: $2,550
Date First Installed: June 1981

3M CO.
2700
Device Type: Transceiver
Transmission Signal: Analog, Digital
Graphics Capability: Yes
Price: $4,450
Date First Installed: June 1981

3M CO.
6140
Device Type: Transceiver
Transmission Signal: Analog, Digital
Graphics Capability: Yes
Price: $2,800
Date First Installed: June 1982

3M CO.
6146
Device Type: Transceiver
Transmission Signal: Analog, Digital
Graphics Capability: Yes
Price: $3,700
Date First Installed: December 1983

3M CO.
6186
Device Type: Transceiver
Transmission Signal: Analog, Digital
Graphics Capability: Yes
Price: $6,500
Date First Installed: May 1983

TRANSMISSION SERVICES VENDORS

Transmission Services Vendors

A. W. COMPUTER SYSTEMS, INC.
Woods Rd.
Rt.#38
Cherry Hill, NJ 08002
(609) 779-7200
Major Market: Communications Equipment Manufacturing; OEM (Computer Systems); Systems House (Commercial OEM); Retail Store
Product Lines: Microwave Services; Satellite Services, Long Lines (MCI, Sprint, Bell); Microwave Equipment; Laser
Net Sales: $1 Million - $5 Million (1981)
Contacts:
Head of Marketing: DI Simone
Head of Software: Mike Greenblatt
Head of Engineering: Charles Welch
Head of Customer Service: Andy Nye
Geographic Coverage: International
Year Established: 1973
Number of Employees: 17

ADDA CORP.
130 Knowles Drive
Los Gatos, CA 95030
(408) 379-1500
Major Market: Communications Equipment Manufacturing
Product Lines: Digital Termination Services, Cellular Radio
Contacts:
Head of Marketing/Sales: Ron Fried
Head of Engineering: Dan Maase
Geographic Coverage: International
Year Established: 1977
Number of Employees: 150

ADTRA TELECOMM LABS
131 Flanders Road
Westboro, MA 01581
Major Market: Component and Communications Equipment Manufacturing
Product Lines: Fiber Optic
Contacts:
Head of Marketing/Sales: Marjorie Katz
Head of Engineering: Leon Woo
Geographic Coverage: International
Year Established: 1981
Number of Employees: 50

AMERICAN PHOTONICS, INC.
71 Commerce Road
Brookfield, CT 06804
(203) 775-8950
Major Market: Communications Equipment Manufacturing
Product Lines: Fiber Optic
Contacts:
Head of Marketing: Scott Siderman
Geographic Coverage: International
Year Established: 1981
Number of Employees: 20

AMERICAN SUN MOON STAR, INC.
10440 Tantau Ave.
Cupertino, CA 95014
(408) 255-9261
Major Market: Communications Equipment Manufacturing
Product Lines: Microwave Services; Satellite Services; Long Lines (MCI, Sprint, Bell); Digital Termination Services, Satellite Equipment
Contacts:
Head of Engineering: Jim Balchtal
Geographic Coverage: International
Year Established: 1981
Number of Employees: 30

ARTEL COMMUNICATIONS CORP.
W. Side Station
P.O. Box 100
Worcester, MA 01602
(617) 752-5890
Major Market: Communications Equipment Manufacturing
Product Lines: Fiber Optic
Contacts:
Head of Marketing: Harry Jain
Head of Sales: John Bielewski
Head of Engineering: Russell Patterson
Geographic Coverage: International
Year Established: 1980
Number of Employees: 40

ASCS & BAUDOT TECHNICAL SERVICES
11300 Hartland St.
N. Hollywood, CA 91605
(213) 769-6772
Major Market: OEM (Peripherals-Terminals); Maintenance/Other Services
Product Lines: Fiber Optic; Laser
Year Established: 1963
Number of Employees: 10

BEJEB, INC.
4824 N.E. 42nd.
Portland, OR 97218
(503) 281-8153
Major Market: Communications Equipment Manufacturing
Product Lines: Digital Termination Services
Contacts:
Head of Marketing/Sales: Richard C. Chamberlin
Head of Engineering: Bill Johnson
Geographic Coverage: International
Year Established: 1972
Number of Employees: 9

CANOGA DATA SYSTEMS
21218 Van Owen St.
Canoga Park, CA 91303
(213) 888-2003
Major Market: Communications Equipment Manufacturing
Product Lines: Fiber Optic
Contacts:
Head of Sales: Jack Miller
Head of Engineering: Mas NaKamori
Geographic Coverage: International
Year Established: 1978
Number of Employees: 110

CHRONOMETRICS
9155 Brookville Rd.
Silver Springs, MD 20910
(301) 587-3507
Major Market: Communications Equipment Manufacturing; System Manufacturing
Contacts:
Head of Marketing: Homav Guerra
Geographic Coverage: National
Year Established: 1977
Number of Employees: 10

COASTCOM
2312 Stanwell Drive
Concord, CA 94520
(415) 825-7500
Major Market: Component and Communications Equipment Manufacturing
Product Lines: Satellite Equipment
Contacts:
Head of Marketing/Sales: William Martin
Head of Sales: William Martin
Head of Engineering: Toney Warren
Head of Customer Service: Paul Rivard
Geographic Coverage: International
Year Established: 1969
Number of Employees: 95

COGENOLL TECHNOLOGY CORP.
1066 N. Broadway
Yonkers, NY 10701
(914) 965-6300
Major Market: Communications Equipment Manufacturing; Maintenance/Other Services
Product Lines: Fiber Optic; Laser
Contacts:
Head of Marketing/Sales: Mike Coden
Head of Sales: Mike Goden
Head of Engineering: Dr. Frederick Scholl
Geographic Coverage: International
Year Established: 1980
Number of Employees: 50

COMPRE COMM, INC.
3200 N Ferber Dr.
Champaign, IL 61821
(217) 352-2477
Major Market: Communications Equipment Manufacturing
Product Lines: Satellite Equipment
Net Sales: $1 Million - $5 Million (1982)
Contacts:
Head of Marketing: Ron Sockal
Head of Sales/Engineering: Andrew B. White
Head of Software: Michael Sears
Geographic Coverage: International
Year Established: 1977
Number of Employees: 40

CONTROL MODULE, INC.
360 Enfield St.
Enfield, CT 06082
(203) 745-2438
Major Market: Peripheral and Communications Equipment Manufacturing; Systems House (Commercial OEM); Maintenance/Other Services
Product Lines: Laser
Net Sales: $5 Million - $25 Million (1981)
Contacts:
Head of Sales: Peter DiMaria
Head of Engineering: Martin Seelig
Head of Customer Service: Marlene Erhardt
Geographic Coverage: International
Year Established: 1969
Number of Employees: 150

CORNING GLASS WORKS
Telecomm Products
Baron Steuben Place
Corning, NY 14831
(607) 974-4411
Major Market: Communications Equipment Manufacturing
Product Lines: Fiber Optic
Contacts:
Head of Marketing: David Duke
Head of Sales: Peter Radding
Geographic Coverage: International
Year Established: 1975
Number of Employees: 30,000

CPT CORP.
8100 Mitchell Road
P.O. Box 295
Minneapolis, MN 55440
(612) 937-8000
Major Market: Communications Equipment and Office Equipment Manufacturing; Software House; Systems House (Commercial OEM)
Product Lines: Microwave and Satellite Equipment
Contacts:
Head of Marketing: Fred Vetter
Head of Sales: Bob Gallagher
Head of Engineering: Jim Wenhold
Geographic Coverage: International
Year Established: 1971
Number of Employees: 1,500

DARGAN, INC.
5725 E. River Road
Chicago, IL 60631
(312) 399-1610
Major Market: Communications Equipment Manufacturing; Maintenance/Other Services
Product Lines: Satellite Services; Satellite Equipment
Net Sales: $5 Million - $25 Million (1981)
Contacts:
Head of Sales: Bob Stewart
Geographic Coverage: International
Year Established: 1969
Number of Employees: 50

DATA GENERAL CORP.
Information Systems Division
4400 Computer Drive
Westboro, MA 01580
(617) 366-8911
Major Market: Component, Computer, Peripheral and Communications Equipment Manufacturing; Software House; Data Services (Service Bureau); Maintenance/Other Services
Product Lines: Microwave Services; Satellite Services; Digital Termination Services; Microwave Equipment
Contacts:
Head of Marketing: Dave Lyons
Head of Sales: Jim Hertzel
Head of Software: Al Scura
Geographic Coverage: International
Year Established: 1969
Number of Employees: 15,000

DEVELCOM ELECTRONICS, INC.
4037 Swamp Road
Doylestown, PA 18901
(800) 528-8423
Major Market: Communications Equipment Manufacturing; Dealer/Distributor;

Maintenance/Other Services
Product Lines: Long Lines (MCI, Sprint, Bell); Cellular Radio
Contacts:
Head of Marketing: Tony Severino
Head of Sales: John Roberts
Head of Engineering: Tom Taschuk
Head of Customer Service: Fred Field
Geographic Coverage: International
Year Established: 1978
Number of Employees: 275,050

BIEDOLD, INC.
818 Mulberry S.E.
P.O. Box 8230
Canton, OH 44711
(216) 488-4000
Major Market: Component, Computer, Terminal and Communications Equipment Manufacturing; OEM (Computer Systems); Software House; Systems House (Commercial OEM); Maintenance/Other Services
Product Lines: Microwave Equipment
Net Sales: More than $100 Million (1982)
Contacts:
Head of Marketing: Robert Mahoney
Head of Sales: Robert Barone
Head of Software: Frank D'Angelo
Head of Engineering: Al Werf
Geographic Coverage: International
Year Established: 1858
Number of Employees: 6,000

DYNAMIC SCIENCES, INC.
7860 Gloria Ave.
Van Nuys, CA 91406
(213) 782-0820
Major Market: Component Manufacturing; Communications Equipment Manufacturing; OEM (Computer Systems); Software House
Product Lines: Microwave Services; Satellite Services; Long Lines (MCI, Sprint, Bell); Digital Termination Services; Cellular Radio; Microwave Equipment; Satellite Equipment; Fiber Optic
Net Sales: $5 Million - $25 Million (1981)
Contacts:
Head of Marketing: Daniel Donovan
Head of Sales: Jim Pyle
Head of Engineering: Jack Birdsall
Geographic Coverage: International
Year Established: 1972
Number of Employees: 180

DYNAMICS SCIENCES, INC.
Suite 525I
2341 Jefferson Davis Highway
Sentry Blvd.
Arlington, VA 22202
(203) 979-1945
Major Market: Component, Computer, Terminal and Communications Equipment Manufacturing; OEM (Peripherals-Terminals); Software House; Systems House (Commercial OEM); Dealer/Distributor; Maintenance/Other Services; Miscellaneous Computer Supplies; Digital Panel Reader
Product Lines: Satellite Services; Digital Termination Services; Cellular Radio; Microwave Equipment; Satellite Equipment; Fiber Optic
Contacts:
Head of Marketing: Daniel Donovan
Head of Sales: Donald Ult
Head of Customer Service: G. Alimus
Number of Employees: 140

ERI COMPUTER SYSTEMS, INC.
6701 Seybold Road
P.O. Box 4272
Madison, WI 53719
(608) 274-4180
Major Market: Software House; Distributor; Dealer
Product Lines: Fiber Optic
Net Sales: Less than $100,000 (1982)
Geographic Coverage: National
Year Established: 1980
Number of Employees: 2

ERICSSON PROGRAMTIC, INC.
11211 Richmond Ave.
Houston, TX 77082
Major Market: Communications Equipment Manufacturing; OEM (Peripherals-Terminals)
Product Lines: Cellular Radio
Contacts:
Head of Marketing: Peter Walsh
Number of Employees: 60

FIBERGUIDE INDUSTRIES, INC.
33 Toppler Dr.
Sterling, NJ 07980
(201) 647-8801
Major Market: Communications Equipment Manufacturing
Product Lines: Fiber Optic
Contacts:
Head of Marketing: W. G. Bozarth
Geographic Coverage: U.S.
Year Established: 1978
Number of Employees: 8

FIBRONICS INTERNATIONAL, INC.
218 W. Main St.
Hyannis, MA 02601
(617) 778-0700
Major Market: Communications Equipment Manufacturing; Dealer; Maintenance/Other Services
Product Lines: Fiber Optic
Net Sales: $1 Million - $5 Million (1983)
Contacts:
Head of Marketing: J. Morris Weinberg
Head of Sales: Kenneth Bowes
Geographic Coverage: International
Year Established: 1977
Number of Employees: 106

FORD AEROSPACE & COMMUNICATIONS CORP. WDL
3939 Fabian Way
Palo Alto, CA 94303
(415) 852-4000
Major Market: Communications Equipment Manufacturing; OEM (Computer Systems)
Product Lines: Microwave Services
Contacts:
Head of Marketing: Charles Stiles
Head of Software: Kenneth L. Ross
Head of Engineering: Jack Thornell
Head of Customer Service: Robert Berry
Geographic Coverage: International
Year Established: 1957
Number of Employees: 5,000

FUJITSU AMERICA, INC.
2075 Oakmead Village Dr.
Santa Clara, CA 95051
(408) 727-4300
Major Market: Peripheral, Communications Equipment and Office Equipment Manufacturing; Dealer/Distributor
Product Lines: Satellite Services; Long Lines (MCI, Sprint, Bell); Microwave Equipment; Satellite Equipment; Fiber Optic; Laser
Net Sales: More than $100 Million (1981)
Contacts:
Head of Marketing/Sales: Norm Peterson
Head of Software: Fred Slifer
Head of Engineering: Ken Kataniha
Geographic Coverage: International
Year Established: 1976
Number of Employees: 300

GANDALF DATA, INC.
1019 S. Noel Ave.
Wheeling, IL 60090
(312) 541-6060
Major Market: Communications Equipment Manufacturing
Product Lines: Fiber Optic
Contacts:
Head of Marketing: Verne Zuppenhofer
Head of Engineering: Jan Bartlett
Geographic Coverage: International
Year Established: 1973
Number of Employees: 325

GENSIS, INC.
Suite 800
12221 Merit Dr.
Dallas, TX 75251
(214) 980-1977
Major Market: Dealer/Distributor; Maintenance/Other Services
Net Sales: $25 Million - $100 Million (1981)
Contacts:
Head of Sales/Customer Service: Bill Robinson
Head of Software: Tony Hoffman
Head of Engineering: Kenneth Wilson
Geographic Coverage: National
Year Established: 1981
Number of Employees: 30

GTE NETWORK SYSTEMS
400 N. Wolf Road
Northlake, IL 60164
(312) 681-7100
Major Market: Communications Equipment Manufacturing
Product Lines: Microwave Services; Microwave Equipment
Contacts:
Head of Marketing: George Bradley
Year Established: 1983
Number of Employees: 10,000

HARRIS CORP.
Government Systems Sector
1025 W. Nasa Blvd.
P.O. Box 37
Melbourne, FL 32902
(305) 727-4000
Major Market: Custom Systems
Product Lines: Microwave Services; Satellite Services
Net Sales: More than $100 Million (1981)
Contacts:
Head of Marketing: Lee Woods
Geographic Coverage: International

HARRIS CORP.
Satellite Communications Division
1301 Waddy Burke Road
P.O. Box 1700
Melbourne, FL 32902
(305) 724-3000
Major Market: Communications Equipment Manufacturing
Product Lines: Satellite Equipment
Contacts:
Head of Marketing: Raymond Pawley

HARRIS CORP.
Farinon Lightwave Division
643 Bair Island Road
Redwood City, CA 94063
(415) 364-5441
Major Market: Communications Equipment Manufacturing
Product Lines: Fiber Optic
Contacts:
Head of Marketing: Elliot Gilbert
Geographic Coverage: International
Year Established: 1982

HARRIS CORP.
Farinon Division
1691 Bayport Ave
San Carlos, CA 94070
(415) 594-3000
Major Market: Communications Equipment Manufacturing
Product Lines: Microwave Equipment
Contacts:
Head of Marketing: Colin Pallemaerts

HBR SYSTEMS, INC.
8404 Indian Hills Dr.
Omaha, NE 68114
(402) 399-1400
Major Market: Component and Communications Equipment Manufacturing; OEM (Computer Systems); OEM (Peripherals-Terminals); Software House; Systems House (Commercial OEM); Data Services (Service Bureau)
Product Lines: Long Lines (MCI, Sprint, Bell)
Net Sales: $1 Million - 65 Million (1981)
Contacts:
Head of Marketing: Terry Pitzatke
Head of Sales: Ron Gillespie
Head of Software: Chung Le
Head of Customer Service: Tom Provost
Geographic Coverage: National
Year Established: 1969
Number of Employees: 45

HEWLETT PACKARD CO.
Corporate Headquarters

Transmission Services Vendors

3000 Hanover St.
P.O. Box 10301
Palo Alto, CA 94304
(408) 986-9800
Major Market: Component, Computer, Terminal, Peripheral and Office Equipment Manufacturing; OEM (Peripherals-Terminals); Software House; Systems House (Commercial OEM); Data Services (Service Bureau); Dealer/Distributor; Maintenance/Other Services; Miscellaneous Computer Supplies
Product Lines: Fiber Optic
Net Sales: More than $100 Million (1982)
Contacts:
Head of Marketing: Al Oliverio
Head of Sales: Jim Arthur
Head of Software: Andre Schwegar
Geographic Coverage: International
Year Established: 1939
Number of Employees: 72,000

INTERNATIONAL DATA SCIENCES, INC.
Corporate Headquarters
7 Wellington Rd.
Lincoln, RI 02865
(401) 333-6300
Major Market: Peripheral and Communications Equipment Manufacturing
Product Lines: Satellite Equipment
Net Sales: $1 Million - $5 Million (1981)
Contacts:
Head of Marketing: Jack Simpson
Head of Sales: T. J. Daniels
Head of Engineering: Ed Salzillo
Geographic Coverage: International
Year Established: 1968
Number of Employees: 150

ITT TELECOM PRODUCTS, INC.
3100 Highwoods Blvd.
Raleigh, NC 27604
(919) 872-3750
Major Market: Component, Computer, Terminal, Peripheral and Communications Equipment Manufacturing; Software House; Systems House (Commercial OEM); Data Services (Service Bureau); Dealer/Distributor; Maintenance/Other Services; Miscellaneous Computer Supplies
Product Lines: Cellular Radio; Fiber Optic
Contacts:
Head of Marketing: Ken Ray
Head of Software/Engineering: W.L. Glomb
Head of Customer Service: George Young Jr.
Geographic Coverage: International
Year Established: 1983
Number of Employees: 8,500

KIRK SYSTEMS CORP.
8307 Highway 71 W.
Austin, TX 78735
(512) 288-1453
Major Market: Computer, Peripheral, Communications Equipment and Interface Manufacturing
Product Lines: Microwave Equipment; Satellite Equipment; Fiber Optic; Laser
Net Sales: $5 Million - $25 Million (1982)
Contacts:
Head of Marketing: Fred Klingensmith
Head of Sales: Steve Stillman
Head of Software: Harry D. Kelma
Head of Engineering: Thomas Allen
Head of Customer Service: Karen Wiley
Geographic Coverage: International
Year Established: 1975
Number of Employees: 60

L.M. ERICSSON TELECOMMUNICATIONS, INC.
370 Crossways Park
Woodbury, NY 11797
(519)
Major Market: Communications Equipment Manufacturing
Product Lines: Microwave Services; Satellite Services, Microwave Equipment; Satellite Equipment; Fiber Optic; Laser

LIGHTWAVE COMMUNICATIONS
650 Danbury Road
RidgeField, CT 06877
(203) 438-9625
Product Lines: Fiber Optic

LINCOLN TELEPHONE SERVICES & SUPPLY, INC.
4900 Superior St.
Lincoln, NE 68504
(402) 466-8337
Major Market: Communications Equipment Manufacturing; Dealer/Distributor
Product Lines: Microwave Equipment; Satellite Equipment; Fiber Optic
Contacts:
Head of Marketing/Engineering: Dean Petty
Head of Sales/Customer Service: Deb Nelson
Year Established: 1979
Number of Employees: 25

LOCUS, INC.
P.O. Box 740
State College, PA 16801
(814) 466-6275
Major Market: Component and Communications Equipment Manufacturing
Product Lines: Satellite Equipment
Net Sales: $5 Million - $25 Million (1981)
Contacts:
Head of Marketing: Walter Coyle
Head of Engineering: Daniel Larchuck
Geographic Coverage: National
Year Established: 1967
Number of Employees: 280

LORAL-TERRACOM
Loral Corp.
9020 Balboa Ave.
San Diego, CA 92123
(619) 278-4100
Major Market: Communications Equipment Manufacturing; Maintenance/Other Services
Product Lines: Microwave Equipment
Net Sales: $1 Million - $5 Million (1982)
Contacts:
Head of Marketing: C. G. Imakeep
Head of Engineering: Brian Martes
Geographic Coverage: International
Year Established: 1970
Number of Employees: 170

M/A-COM, INC.
M/A-COM Cable Home Group
Rt. 1
P.O. Box 198A
Catawba, NC 28609
(704) 241-3142
Major Market: Component and Communications Equipment Manufacturing
Product Lines: Microwave Equipment; Satellite Equipment
Net Sales: $25 Million - $100 Million (1981)
Contacts:
Head of Marketing: Frank Logan
Head of Sales: Gene Switchenbank
Geographic Coverage: International
Year Established: 1950
Number of Employees: 1,900

MATH ASSOCIATES, INC.
2200 Shames Drive
Westbury, NY 11590
(516) 334-6600
Major Market: Component, Peripheral and Communications Equipment Manufacturing; Miscellaneous Computer Supplies; Custom Communications Equipment
Product Lines: Fiber Optic; Laser
Contacts:
Head of Marketing: Bob DeLia
Head of Sales: Norman Fein
Head of Engineering: Irwin Math
Geographic Coverage: Western Europe
Year Established: 1972
Number of Employees: 30

MCI INTERNATIONAL, INC.
One WUI Plaza
New York, NY 10004
(212) 363-8400
Major Market: Communications Equipment Manufacturing; Maintenance/Other Services
Product Lines: Long Lines (MCI, Sprint, Bell)
Net Sales: More than $100 Million (1981)
Geographic Coverage: International
Year Established: 1963
Number of Employees: 1,400

MITEL, INC.
Mitel Semiconductor
5400 Broken Sound Blvd.
Boca Raton, FL 33431
(305) 994-8568
Major Market: Component, Terminal, Peripheral, Communications Equipment and Office Equipment Manufacturing; OEM (Peripherals-Terminals); Dealer/Distributor
Product Lines: Long Lines (MCI, Sprint, Bell); Digital Termination Services
Contacts:
Head of Sales: Gordon Turner
Head of Engineering: Tom Mayer
Geographic Coverage: National
Year Established: 1971

MOSELEY ASSOCIATES, INC.
Santa Barbara Research Park
111 Castilian Dr.
Goleta, CA 93117
(805) 968-9621
Major Market: Component, Communications Equipment Manufacturing
Product Lines: Microwave Equipment
Contacts:
Head of Marketing: Charles Rockhill
Head of Sales: Kin Jones
Head of Engineering: Donald Sharpe
Head of Customer Service: Jim Jones
Geographic Coverage: International
Year Established: 1960
Number of Employees: 150

MOTOROLA, INC.
1301 E. Algonquin Road
Schaumburg, IL 60196
(312) 576-7000
Major Market: Component, Computer, Terminal, Communications Equipment and Office Equipment Manufacturing; OEM (Peripherals-Terminals); Systems House (Commercial OEM); Data Services (Service Bureau); Dealer/Distributor; Maintenance/Other Services; Miscellaneous Computer Supplies
Product Lines: Satellite Services; Cellular Radio
Contacts:
Head of Marketing: Bob Cecil
Head of Sales: Art Sundry
Head of Customer Service: Ira Weiter
Geographic Coverage: International
Year Established: 1939
Number of Employees: 75,000

MOUNTAIN COMPUTER, INC.
300 El Pueblo Road
Scotts Valley, CA 95066
(408) 438-6650
Major Market: Peripheral, Communications Equipment and Office Equipment Manufacturing; OEM (Peripherals-Terminals); Dealer/Distributor; Miscellaneous Computer Supplies, Storage System
Product Lines: Cellular Radio
Net Sales: $1 Million - $5 Million (1981)
Contacts:
Head of Marketing: Robert Stroh
Head of Software: George Proper
Head of Engineering: Eric Swartz
Head of Customer Service: Stan Scardino
Geographic Coverage: International
Year Established: 1977
Number of Employees: 120

NESCO
107 San Zeno Way
Sunnyvale, CA 94086
(408) 737-2080
Major Market: Communications

Equipment Manufacturing, Maintenance/Other Services; Communications Network
Product Lines: Satellite Services; Long Lines (MCI, Sprint, Bell); Digital Termination Services
Contacts:
Head of Marketing: Jim Peluso
Head of Customer Service: Nancy Peluso
Geographic Coverage: International
Year Established: 1975
Number of Employees: 30

NEVADA BELL
645 E. Plumb Lane
Reno, NV 89520
(702) 799-9000
Major Market: Telecommunications
Product Lines: Microwave Services; Digital Termination Services
Contacts:
Head of Marketing/Sales: Don Van Epps
Year Established: 1913
Number of Employees: 1,450

NORTHERN TELECOM, INC.
1001 E. Arapaho Road
Nelson Highway 54
P.O. Box 13010
Richardson, TX 75081
(214) 238-4700
Major Market: Computer, Terminal, Peripheral and Communications Equipment Manufacturing; OEM (Computer Systems); OEM (Peripherals-Terminals); Data Services (Service Bureau); Dealer/Distributor; Maintenance/Other Services; Miscellaneous Computer Supplies
Product Lines: Microwave Services; Satellite Services, Microwave Equipment; Satellite Equipment; Fiber Optic
Contacts:
Head of Sales: Nelson Boyd
Geographic Coverage: International
Year Established: 1971
Number of Employees: 15,000

NORTHERN TELECOM, INC.
Integrated Office Systems
1001 East Arapaho Road
Richardson, TX 75081
(214) 234-5300
Major Market: Computer, Terminal, Peripheral and Communications Equipment Manufacturing; OEM (Computer Systems); Maintenance/Other Services
Product Lines: Microwave Equipment; Fiber Optic
Net Sales: Over $100 Million (1982)
Contacts:
Head of Marketing: Bob Dyer
Head of Sales: Nelson Boyd
Head of Software: Bruce Stevens
Head of Engineering: Bob Davis
Head of Customer Service: Bob Wilder
Geographic Coverage: International
Year Established: 1975
Number of Employees: 7,500

NOVATEL COMMUNICATIONS, INC.
2020 Peterson Place
Norcross, GA 30071
(404) 449-6666
Major Market: Communications Equipment Manufacturing, Maintenance/Other Services
Contacts:
Head of Marketing: Jake MacLeod
Head of Sales: Peter Zugus
Head of Engineering: Dr. Arunas Slekys
Head of Customer Service: Bill Wight
Geographic Coverage: International
Year Established: 1982
Number of Employees: 500

OKI ELECTRONICS OF AMERICA, INC.
5901-B Peach Tree Dunwoody Road
Atlanta, GA 30093
(404) 399-5500
Major Market: Component, Computer, Peripheral, Communications Equipment and Office Equipment Manufacturing; OEM (Peripherals-Terminals); Software House, Systems House (Commercial OEM); Data Services (Service Bureau); Dealer/Distributor; Maintenance/Other Services
Product Lines: Cellular Radio
Contacts:
Head of Marketing/Customer Service: Steve Fields
Head of Sales: Dick Fisher
Geographic Coverage: International
Year Established: 1969
Number of Employees: 325

P.R. HUGHES & CO., INC.
17 Howell Road
Sudbury, MA 01776
(617) 443-2453
Major Market: Communications Equipment Manufacturing; OEM (Computer Systems); Electronic Equipment
Product Lines: Satellite Equipment
Geographic Coverage: International
Year Established: 1975
Number of Employees: 8

PACIFIC TELECOM, INC.
805 Broadway
Vancouver, WA 98668
(206) 696-0983
Major Market: Communications Equipment Manufacturing; OEM (Computer Systems); Maintenance/Other Services
Product Lines: Microwave Equipment; Satellite Equipment; Fiber Optic; Laser
Contacts:
Head of Marketing: Chuck Russell
Head of Engineering: Jim Warwick
Head of Customer Service: Greg Bogus
Geographic Coverage: Regional
Year Established: 1975
Number of Employees: 2,200

PACNET CORP.
8321 Lemmon Ave.
Dallas, TX 75209
(214) 353-0396
Major Market: Communications Equipment Manufacturing; Maintenance/Other Services
Product Lines: Satellite Services; Long Lines (MCI, Sprint, Bell); Digital Termination Services; Satellite Equipment
Contacts:
Head of Marketing: Gilbert Williams
Head of Sales: George Kelly
Head of Engineering: Doug Littlewood
Geographic Coverage: National
Year Established: 1972
Number of Employees: 32

PANASONIC INDUSTRIAL CO.
Matsushita Electronic Corp. of America
One Panasonic Way
Secaucus, NJ 07094
(201) 348-7000
Major Market: Component, Computer, Peripheral, Communications Equipment and Office Equipment Manufacturing; OEM (Computer Systems); OEM (Peripherals-Terminals); Dealer/Distributor; Maintenance/Other Services
Product Lines: Cellular Radio
Contacts:
Head of Marketing: Scott Minakami
Head of Sales: Joe Shohioku
Geographic Coverage: International
Year Established: 1962
Number of Employees: 800

PHALO CORP.
Optical Systems
65 Moreland Road
Simi Valley, CA
(805) 522-3333
Major Market: Communications Equipment Manufacturing; Maintenance/Other Services
Product Lines: Fiber Optic
Contacts:
Head of Sales: Jim Rodgers
Year Established: 1981

PULSECOM
2900 Towerview Road
Herdon, VA 22071
(703) 471-2900
Major Market: Communications Equipment Manufacturing, Software House; Systems House (Commercial OEM)
Product Lines: Microwave Equipment; Satellite Equipment
Contacts:
Head of Marketing: Michael Vincour
Head of Engineering: James Britt
Geographic Coverage: National
Year Established: 1983
Number of Employees: 300

RACOM, INC.
12828 Interurban Ave. S.
Seattle, WA 98168
(206) 241-1110
Major Market: Communications Equipment Manufacturing
Product Lines: Microwave Equipment
Net Sales: $500,00 - $1 Million (1981)
Contacts:
Head of Marketing: Susan Furushiro
Head of Sales: James Dooley
Geographic Coverage: International
Year Established: 1969
Number of Employees: 55

RCA AMERICAN COMMUNICATIONS, INC.
400 College Road E.
Princeton, NJ 08540
(609) 734-4000
Major Market: Communications Equipment Manufacturing
Product Lines: Satellite Services
Contacts:
Head of Marketing: John Williamson
Head of Sales: Murray Pruchter
Head of Customer Service: J. F. Underwood
Geographic Coverage: National
Year Established: 1978
Number of Employees: 500

ROCKWELL INTERNATIONAL
Collins Transmission Systems
1200 N. Alma Road
P.O. Box 10462
Richardson, TX 75207
(214) 996-5000
Major Market: Communications Equipment Manufacturing
Product Lines: Microwave Equipment; Satellite Equipment; Fiber Optic
Contacts:
Head of Marketing: Vroman Riley
Head of Sales: Les Fisher
Geographic Coverage: International
Year Established: 1928
Number of Employees: 5,500

ROTELCOM
105 Central Ave.
Cortland, NY 13045
(607) 756-7511
Major Market: Communications Equipment Manufacturing; Dealer/Distributor
Product Lines: Fiber Optic
Contacts:
Head of Marketing: Loraine Haslin
Head of Sales: Greg Merrill
Head of Customer Service: Paula Barber
Number of Employees: 150

SCIENTIFIC ATLANTA, INC.
Corporate Headquarters
One Technology Parkway
P.O. Box 105600
Atlanta, GA 30348
(404) 449-3000
Major Market: Communications Equipment Manufacturing, Software House
Product Lines: Satellite Equipment
Net Sales: More than $100 Million (1982)
Contacts:
Head of Marketing: Del Bothol
Head of Engineering: Dr. Guy Beakley
Geographic Coverage: International
Year Established: 1952
Number of Employees: 5,000

SIECOR FIBERLAN
P.O. Box 12726
Research Triangle Park, NC 27709
(919) 544-3791
Major Market: Communications Equipment Manufacturing; OEM (Computer Systems); Systems

Transmission Services Vendors

House (Commercial OEM); Maintenance/Other Services
Contacts:
Head of Marketing: Glenn R. Constable
Head of Sales: Russell Stanley
Head of Engineering: Richard Jones
Year Established: 1982
Number of Employees: 17

SOUTHERN BELL TELEPHONE AND TELEGRAPH CO.
675 W. Peachtree St. N.E.
Atlanta, GA 30375
(404) 529-8611
Major Market: Telecommunications
Product Lines: Microwave Services; Digital Termination Services; Cellular Radio
Contacts:
Head of Marketing: Donald B. Daves
Year Established: 1879
Number of Employees: 72,000

TELEPHONE COMPUTER CO., INC.
1930 Isaac Newton Square
Reston, VA 22090
(703) 435-5100
Major Market: Computer Manufacturing; Communications Equipment Manufacturing; OEM (Peripherals-Terminals); Software House
Product Lines: Long Lines (MCI, Sprint, Bell)
Net Sales: $1 Million - $5 Million (1982)
Contacts:
Head of Marketing: Ron Elsaik
Year Established: 1979
Number of Employees: 15

TERRACOM
9020 Balboa Ave.
San Diego, CA 92123
(619) 278-4100
Major Market: Communications Equipment Manufacturing
Product Lines: Microwave Equipment
Contacts:
Head of Marketing: Mike Labadula
Geographic Coverage: International
Year Established: 1970
Number of Employees: 195

THE OHIO BELL TELEPHONE CO.
Headquarters
100 Erieview Plaza
Cleveland, OH 44144
(216) 822-9700
Major Market: Dealer/Distributor; Telecommunications
Product Lines: Microwave Services; Digital Termination Services
Contacts:
Head of Marketing: Leo Richard
Year Established: 1921
Number of Employees: 16,300

UNGERMANN-BASS, INC.
Suite 201
2560 Mission College Blvd.
Santa Clara, CA 95050
(408) 496-0111
Major Market: Communications Equipment Manufacturing
Product Lines: Digital Termination Services; Fiber Optic
Net Sales: $5 Million - $25 Million (1982)
Contacts:
Head of Marketing: James Jordan
Head of Software: Cary Wyman
Head of Engineering: Robert Ryan
Head of Customer Service: Bruce Jackson
Geographic Coverage: International
Year Established: 1979
Number of Employees: 350

WALTEC
99 Hartwell St.
West Boylston, MA 01583
(617) 835-6082
Major Market: Communications Equipment Manufacturing; Maintenance/Other Services
Product Lines: Fiber Optic
Contacts:
Head of Marketing: Marguerite Shapla
Head of Sales: George Golablowski
Geographic Coverage: International
Year Established: 1967
Number of Employees: 200

VERSITRON, INC.
6310 Chillum Place N.W.
Washington, DC 20011
(202) 882-8464
Major Market: Communications Equipment Manufacturing
Product Lines: Fiber Optic
Geographic Coverage: International
Year Established: 1958
Number of Employees: 50

WESTERN MULTIPLEX CORP.
1045 Howard Ave.
San Carlos, CA 94070
(415) 592-6832
Major Market: Communications Equipment Manufacturing
Contacts:
Head of Marketing: John P. Bartelme
Geographic Coverage: International
Year Established: 1980
Number of Employees: 11

WISCONSIN TELEPHONE CO.
722 N. Broad St.
Milwaukee, WI 53201
(414) 456-3000
Major Market: Dealer/Distributor; Telecommunications
Product Lines: Digital Termination Services
Contacts:
Head of Marketing: Gary Van Olke
Head of Customer Service: Chuck Dickson
Year Established: 1883
Number of Employees: 9,000

XYPLEX, INC.
100 Domino Dr.
Concord, MA 01742
(617) 371-1400
Major Market: Peripheral and Communications Equipment Manufacturing
Product Lines: Long Lines (MCI, Sprint, Bell); Digital Termination Services; Fiber Optic
Contacts:
Head of Marketing: Robert Rosenbaum
Head of Engineering: George Comant
Geographic Coverage: National
Year Established: 1981
Number of Employees: 6

ZOOM TELEPHONICS, INC.
207 South St.
Boston, MA 02111
(617) 423-1230
Major Market: Communications Equipment Manufacturing
Product Lines: Long Lines (MCI, Sprint, Bell)
Contacts:
Head of Marketing: Ralph Haye
Year Established: 1977
Number of Employees: 50

ADVERTISER'S INDEX

Advertiser's Index

Advanced Computer Communications (ACC)	Tab Divider C
Anchor Pad International, Inc.	A-15
BBN Communications Corp.	B-48
Codex Corp.	Cover 1
Concord Data Systems, Inc.	A-13
CPT Corp.	Tab Divider B
CW Communications/Inc.	22, 45, V-27, V-31, V-33, B-53, C-47, Cover 3
Gandalf Data, Inc.	A-33, A-53
General Datacomm Industries, Inc.	1
Glenayre Communications, Inc.	A-43
ICOT Corp.	B-7
Leading Edge Products, Inc.	Cover 4
Local Data, Inc.	B-13
M/A-COM Linkabit, Inc.	B-49
Micom Systems, Inc.	A-41
MTI Systems Corp.	A-51, B-17
National Products Marketing, Inc.	Cover 2
Persyst, Inc.	B-9
Philips Electronic Instruments, Inc.	B-47
Phone 1, Inc.	C-37
Televideo Systems, Inc.	25
Tellabs, Inc.	2
Universal Data Systems, Inc.	Tab Divider A
Wang Laboratories, Inc.	21

The Advertiser's Index is provided as an additional service. The publisher does not assume any liability for errors or omissions.

Computerworld Sales Offices

CORPORATE HEADQUARTERS: Donald E. Fagan, Vice-President/Sales. Edward P. Marecki, Director/National Sales. Frank Collins, Corporate Advertising Administrator, Kathy Doyle, Marketing Support Manager, Pam Valentinas, Special Publications Ad Coordinator. COMPUTERWORLD, 375 Cochituate Road, Box 880, Framingham, Mass. 01701, Phone: (617) 879-0700, Telex: 95-1153.

BOSTON SALES OFFICE: Chris Lee, Regional Director. Bill Cadigan, Account Manager. Alice Longley, Sales Assistant. COMPUTERWORLD, 375 Cochituate Road, Box 880, Framingham, Mass. 01701, Phone: (617) 879-0700, Telex: 95-1153.

CHICAGO SALES OFFICE: Chris Lee, Regional Director. Bill Cadigan, Account Manager. Jean Fowler Broderick, Sales Assistant. COMPUTERWORLD, 2600 South River Road, Suite 304, Des Plaines, Ill. 60018, Phone: (312) 827-4433.

NEW YORK SALES OFFICE: Michael J. Masters, Regional Director. Tom Flynn, Account Manager. Gale M. Paterno, Sales Assistant. COMPUTERWORLD, Paramus Plaza I, 140 Route 17 North, Paramus, N.J. 07652, Phone: (201) 967-1350.

ATLANTA SALES OFFICE: Michael J. Masters, Regional Director. Tom Flynn, Account Manager. COMPUTERWORLD, 1853 Peeler Road, Suite D, Atlanta, Ga. 30338, Phone: (404) 394-0758.

SAN FRANCISCO SALES OFFICE: William Healey, Regional Director. Ruth Gordon, Account Coordinator. COMPUTERWORLD, 300 Broadway, Suite 20, San Francisco, Calif. 94133, Phone: (415) 421-7330.

LOS ANGELES SALES OFFICE: William Healey, Regional Director. Beverly Raus, Account Coordinator. COMPUTERWORLD, 18008 Skypark Circle, Suite 260, Irvine, Calif. 92714, Phone: (714) 261-1230.

COMPUTERWORLD BUYER'S GUIDE

WHAT'S NEW?

Is your company new? Have a new product? Moved?

Make sure your listing appears in the next *Computerworld Buyer's Guide to Communications*. Simply fill out this card and return it to us and we'll include your free listing in our next issue.

Company _____

Address _____

City _____ State _____ Zip _____

Your Name/Title _____ Telephone _____

Product _____

Brief Description _____

Please check appropriate box: ☐ new address ☐ new company or listing ☐ new product

☐ Please call me for more information

COMPUTERWORLD BUYER'S GUIDE

Put your directory advertising in front of *Computerworld* readers.

The *Computerworld Buyer's Guides* are distributed exclusively to the more than 114,000 *Computerworld* subscribers in the United States. When a buyer sees your listing in one of the *Computerworld Buyer's Guides*, make sure your ad is there to tell your story.

Yes! Please send me the following information on advertising in the *Computerworld Buyer's Guides*:

☐ Complete 1984 Ratecard ☐ Expanded Listings & Bold Headings

☐ Inserts & Postcards ☐ Please have a sales representative call me.

Name/Title _____

Company _____

Address _____

City _____ State _____ Zip _____

Telephone _____

COMPUTERWORLD BUYER'S GUIDE

We Welcome Your Comments

It is our aim to fill the information needs of our subscribers and readers. We want to make sure you find what you need in the *Computerworld Buyer's Guide*. With your help, we hope to make our guides the best in the industry. Please take a moment to tell us what you think.

Please rank the following categories:

	Excellent	Good	Satisfactory	Fair	Poor
LISTINGS	☐	☐	☐	☐	☐
MAGAZINE SECTION	☐	☐	☐	☐	☐
OVERALL FORMAT	☐	☐	☐	☐	☐

Your comments or suggestions: _____

_____

_____

_____

Name/Title: _____ Telephone: _____
(optional)

Thank you!

NO POSTAGE NECESSARY IF MAILED IN THE UNITED STATES

BUSINESS REPLY CARD
FIRST CLASS PERMIT NO 709 FRAMINGHAM, MA 01701

POSTAGE WILL BE PAID BY ADDRESSEE

CW COMMUNICATIONS/INC.
Attn: Kevin McPherson
375 Cochituate Road
Box 880
Framingham, MA 01701

COMPUTERWORLD BUYERS GUIDE

NO POSTAGE NECESSARY IF MAILED IN THE UNITED STATES

BUSINESS REPLY CARD
FIRST CLASS PERMIT NO 709 FRAMINGHAM, MA 01701

POSTAGE WILL BE PAID BY ADDRESSEE

CW COMMUNICATIONS/INC.
Attn: Kevin McPherson
375 Cochituate Road
Box 880
Framingham, MA 01701

COMPUTERWORLD BUYERS GUIDE

NO POSTAGE NECESSARY IF MAILED IN THE UNITED STATES

BUSINESS REPLY CARD
FIRST CLASS PERMIT NO 709 FRAMINGHAM, MA 01701

POSTAGE WILL BE PAID BY ADDRESSEE

CW COMMUNICATIONS/INC.
Attn: Kevin McPherson
375 Cochituate Road
Box 880
Framingham, MA 01701

COMPUTERWORLD BUYERS GUIDE

To: Circulation Dept., CW Communications/Inc.,
Box 880, Framingham, MA 01701

☐ Please enter my one-year subscription to the publication(s) I have checked. (If you wish only to get further information on a publication, just circle the name).

☐ Computerworld — $44* ☐ InfoWorld — $31*
☐ PC World — $24* ☐ Micro Marketworld*
☐ My check is enclosed ☐ Charge to my credit card ☐ MC ☐ Visa
☐ Amex Exp. date _____ (MC only)

☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐ ☐☐☐☐

Name _____ Address _____
Title _____ City _____
Company Name _____ State _____
Signature _____ Zip _____
(cardholder's signature)

Address Shown: ☐ Business ☐ Home ☐ Send foreign rates
☐ Check here if you do not wish to receive relevant promotional mail.

CW COMMUNICATIONS/INC.

129 *US ONLY

THE DAY THE IBM PC BECAME OBSOLETE.

△